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ORIGINAL LECTURES.

INSULAR SCLEROSIS OF THE BRAIN.

A Clinical Lecture

Delivered at the Rush Medical College, Chicago, Ill.

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GENTLEMEN: This man, who was before the Clinic on a previous occasion, is thirty-four years of age, a canvasser by occupation, and says that in November last he had a "stroke," and since has been unable to walk well. He has had no previous illness so far as we are able to ascertain. The attack came on while he was sitting in a chair at home, though he states that he had a peculiar nervous feeling shortly before. For fifteen minutes after the stroke he could not speak and had a cramp in both hands, but did not fall or lose consciousness. At the end of fifteen minutes he was able to speak a little. The trouble has been growing worse. The reflexes are normal, heart sounds normal, vision good, but the right arm is getting weaker, and in it he has numb feelings which last for half an hour at a time.

After questioning a little further, we learn that he has been engaged in the canvassing business for several years, and in the course of that time he suffered a good deal from exposure to the sun; and that he has taken a glass of beer with his supper for the last ten years. He has had no venereal disease, but suffered with rheumatism before this stroke.

It is important to establish these facts in order to ascertain if there is a predisposition toward constitutional diseases. In the case of patients suffering from syphilis, there is a predisposition to syphilitic disease involving the arteries of the brain, so that in such patients rupture of a bloodvessel is common. Rheumatism frequently predisposes to cerebral difficulties in the way I indicated when speaking of chorea on a former occasion. As a consequence of endocarditis, vegetations form upon the edges of the valves of the heart; minute fragments may be broken off and washed into the circulation, and we may have obstruction to the bloodvessels in a certain territory of the brain, which produces the symptoms of a stroke. A favorite locality for this plugging of the vessels is the Sylvian artery, which lies in the fissure of Sylvius and which gives off branches right and left to that portion of the brain cortex forming the *motor zone*. Now, when we get a plugging of the vessels and an arrest of the circulation, there is enfeeblement of all the functions of that part of the brain.

This patient tells us that it was the right side that was weakened, therefore, as the left motor zone is in direct communication with the right side of the body, it was upon the left side that the disease occurred. The fact that he did not lose consciousness at the time of the attack indicates that the lesion is not very extensive.

We have not as yet made any investigation as to whether it was a rupture or a plugging of the artery. The effects, so far as the functions of the brain are concerned, are similar. If there be rupture of one of the twigs connected with the Sylvian artery, there will be an escape of blood and compression of the brain substance in that neighborhood. If there is a plugging of the artery, the blood-supply is shut off, and the final result of this stoppage is also arrested functional activity.

It is a singular fact that when the left side of the brain in the region of the Sylvian artery is thus affected, the power of speech is interfered with. When, on the other hand, the right side of the brain is affected, there is no loss of speech, but paralysis of the limbs. I will not stop to tell you how this loss of speech may be produced by lesions of the brain, but there are other portions of the brain which may be affected in such a way as to destroy the power of speech.

We will ask the patient to hold a glass of water with his hand, and you notice that he cannot do so steadily; yet there is not so much agitation of the hand as there is sometimes in the case of tumors of the brain. The left hand is much steadier than the right.

I will now ask him to write the words, "Rush Medical College." The reason I ask him to write an unfamiliar sentence is, that if I were to give him a familiar one he would write it more or less automatically. You will observe that there is an irregular, angular character to all the strokes of the pencil, that instead of being regular and well formed, they are of characteristic inequality. You will often see this tremor in old age, for many persons, as they advance in years, suffer from atrophy of the brain, which causes tremulous hands, so that the lines or characters which they make with pen or pencil are characterized by the same irregularity and inequality which we observe in this patient.

The use of narcotic poisons, such as tobacco, will produce it, and sometimes excessive venery. Loss of sleep, which produces great exhaustion of the brain, especially in persons advancing in years, will often be followed by the appearance of tremor; but the most serious cause of it is disease of the brain substance itself, either a sclerosis in disseminated patches or injury to the brain substance, here and there, consequent upon disease of the cerebral bloodvessels. I think that this is the case here.

When sclerotic disease invades the brain, there is, furthermore, a tendency to the manifestation of occasional paroxysms of paresis, partial loss of consciousness, and perhaps epileptiform attacks, which are multiple in their development. Sometimes the patient becomes completely paralyzed and comatose, but in two or three days' time recovers the power of locomotion and is able to walk again; speech and consciousness reappear, but the diseased condition returns after a time. Such a condition is not infrequent in cases of chronic inflammation of the cortex, which constitutes the foundation of parietic dementia; and you see it, moreover, in the case of chronic dis-

ease of the bloodvessels, as we have here. When there is this tendency to chronic sclerosis and to arterio-sclerosis, not only do we have this tremor, but there is also disturbance of speech when the patient has recovered. There is an irregular utterance, and instead of speaking out smoothly with a continuous flow of sounds, the words are uttered in a broken manner. Let me direct your attention to the articulation of this patient. It is with apparent difficulty that he utters the word *institution*. In asking him where he resides, you notice that he replies, "Eight-teen Ev-ans Cou-rt," instead of speaking out clearly, "Eighteen Evans Court." He utters each syllable with a special effort in an unnatural and artificial way. This is consequent upon the lack of equable and continuous flow of energy from the brain. In order to make this intelligible, you must think of the efforts that are evolved from the healthy brain in the movement of the muscles during articulation, the disordered brain preventing that easy and continuous flow of sounds or words necessary for fluent speech. In this case we have a conspicuous illustration of the fact. There was a sclerotic disease going on in the brain before it was recognized, on the occurrence of one of the paroxysms of which I have spoken. These paroxysms are liable to occur from time to time during the course of the disease. The patient now shows the consequences of a confirmed and fully developed disease in the brain and its bloodvessels. There is only partial paralysis of the muscles on the right side, the difference being more conspicuous in the hands than in the legs.

Let us try the condition of the reflexes. There is spastic rigidity of the muscles on the right side; they are not under the control of the will. The degeneration in the motor zone of the brain reaches down to the pyramidal tract of the lateral column of the cord, and the muscles are at times thrown into a state of rigid contraction. Here there is constant rigidity kept up by the irritation in the lateral columns of the spinal cord.

You notice, too, that when he puts his tongue out it is impossible for him to do so without trembling. The tongue varies its position in consequence of his inability to control the action of the muscles that are concerned in the disorder.

The patient says that the paralysis is not increasing as time goes on, but that his hands become more unsteady, which is due to the fact that the sclerotic process continues to spread in the brain, and constantly involves larger areas.

If this trouble had been plugging of an artery, there would have been a preëxisting inflammation in the heart, with valvular lesions, which, on auscultation, we find is not the case; consequently this is one of those cases in which the disease originated in the brain and had been going on for a considerable length of time before attention was directed to it.

The treatment in such a case is not very encouraging. The disease depends upon a sclerotic process that is permanent, and which is liable to extend, rather than diminish. Still we should not neglect the patient. We should give him the best opportunities and treatment that are accessible; and in those cases of long-continued chronic changes in the brain substance, where we cannot hope for complete restoration, we sometimes see marked improvement from the use of mercury in small doses. My favorite prescription for such cases is the biniodide

of mercury, given in doses of about the twenty-fifth of a grain three times a day. This may be given for months without any danger of salivation or injury to the patient, and frequently with considerable improvement in the general condition. The iodide of potassium does not seem to be as efficient as the biniodide of mercury given in this long-continued and patient manner. After all, it is doubtful whether you will ever see such a case cured.

ORIGINAL ARTICLES.

CONGENITAL DISLOCATIONS OF THE HIP.¹

BY CHARLES SETH EVANS, B.S., M.D.

As time has gone by, certain facts of a clinical and general nature have been tolerably well established in regard to congenital dislocations of the hip. These are:

1. The malformation most commonly affects each hip, in the proportion of three or four to one.
2. It is much more frequent in the female than the male sex.
3. The most usual form of dislocation is upward and backward on the dorsum ilii, though other dislocations do occur, such as directly upward, upward and forward upon the pubes, or into the sacro-sciatic notch.
4. The affection is distinctly hereditary.
5. Many cases are associated with other deformities, such as congenital dislocations of other joints, but more especially with malformations due to a lack of development, or a failure of one of the body cavities to close—such as spina bifida, ectopia vesicæ, and meningo-encephalocele.
6. The deformity is first noticed when the child begins to walk.

The clinical history of a case of congenital dislocation of the hip, briefly stated, is generally as follows: The child, after a normal birth, seems perfectly well, and nothing is noticed until it makes its first attempts at walking; this it does rather later than other children. The limping gait, in the rare unilateral dislocations, due to the shortening of the affected extremity, or the waddling movements, like a duck, in the double dislocations, call attention to the hip-joints.

The waddling gait is caused by the body, which is, as Volkmann points out, swung between the femurs like an old-fashioned stage coach on its leather springs, being alternately thrown from side to side so as to place its weight upon the limb which is not to be moved in making the next step.

As the patient increases in age the gait grows worse up to, if not after, puberty. The condition, as a rule, is not painful.

The deformity is quite characteristic. The patients

¹ Read before the Southwestern Ohio Medical Society, Cincinnati, October 9, 1889.

have a peculiar squatty figure, the body appearing longer than normal, while the legs seem shorter and more puny. The body looks as if it had fallen down between the thighs until the umbilicus is on a level with the iliac crest. A marked lordosis and a corresponding prominence of the belly are present. The pelvis is much more oblique than normal; the hips are raised, while in the neighborhood of the posterior superior spinous processes of the iliac bones, the ends of the femurs may be seen as rounded prominences. The gluteal folds are not obliterated, but raised upward and outward. In a recumbent position many of these changes are modified: The lordosis and projecting belly disappear more or less completely, according to the age of the patient, and the prominence of the great trochanters grows less.

If moderate traction is made upon the legs, certain further changes may, or may not, occur, for in a not inconsiderable number of cases the legs can be drawn down until the heads of the femurs occupy, more or less approximately, positions opposite to those of the acetabuli, when, of course, the deformity ceases to be manifested. In other cases the femurs are fixed in their abnormal positions and traction produces no effect.

An examination of the hip region shows that the rounded prominences are due to the great trochanters, and, at times, reveals the femur heads lying in the vicinity.

On constructing the Roser-Nélaton line the trochanters are found to lie more or less above it. Motion, active or passive, is generally free and painless, and when limited, it is most apt to be in the directions of abduction and rotation.

As a rule, two of the cardinal symptoms of a traumatic luxation are absent: adduction and internal rotation.

The deformity is a progressive one. The gait becomes more and more striking, and is always more noticeable in walking than in running or dancing. The disproportion between the body and legs increases as the child uses its limbs, for it is only in extremely rare cases that a strong nearthrosis is formed.

PATHOLOGY.—Here two very distinct and separate classes of cases must be considered:

A. Those which have walked.

B. Those which have never walked.

The pathological changes may be classified thus:

1. Changes in the position of the femur head.
2. Changes in the component parts of the joint.
3. Changes in the tissues in abnormal relation with the head of the femur.
4. Changes in the muscles inserted round the hip-joint.

We shall first consider the pathological changes in the class of cases which *have walked*, more espe-

cially the changes in the position of the head of the femur.

As I have already stated, in the vast majority of cases of this class, the head of the femur is found dislocated upon the dorsum ilii, and resting either upon the gluteus minimus or upon the iliac bone itself.

The changes in the component parts of the joint consist in those occurring in the capsule, which is usually entire, but may be wanting opposite the head of the femur, under which circumstance its absence is best explained as due to an atrophy from pressure. The capsule is elongated, stretching around the cotyloid cavity to envelop the head in its abnormal position.¹ It is much thickened and very fibrinous, especially in that part representing the Y-ligament,² and is quite frequently attached to the fascia of the gluteal muscles,³ and not infrequently has an hour-glass form,⁴ rendering an apposition of the head of the femur and the acetabulum impossible.⁵ More or less movement of the head of the bone within the capsule is the rule.

The synovial surface of the capsule is usually polished and of normal appearance, while attachments to the more or less imperfect round ligament are common, as are also attachments to the acetabular ring, over which the capsule is stretched, as well as to the head and neck of the femur.

The synovia varies in amount, in some cases being normal, in others excessive, although one would expect an enlarged capsular cavity and more synovia than in a normal joint.

The condition of the *ligamentum teres* varies extremely. In some cases it is found not only elongated, which, if the ligament exists in its entirety, must be the case, but also thickened, ribbon-like, and on the stretch, pointing to the fact that it had played an important rôle in carrying the weight of the body.⁶ Or, again, the ligament, though entire, is more or less attached to the capsule.⁷ In opposition to this condition the round ligament has been found entirely wanting,⁸ or may be represented by a band no thicker than a thread, which is often incomplete or of abnormal origin, arising by two heads from the acetabulum or from the cotyloid ligament.⁹

The neck is usually shorter than normal, and has a direction more horizontal to the axis of the femur.

¹ Holmes-Coote: Lancet, 1860.

² Carnochan: New York Journal of Medicine, 1848. Berend: British Medical Journal, 1861.

³ Canton: London Medical Gazette, xli.

⁴ Birnbaum: Wien. med. Presse, 1859.

⁵ Bouvier: Bull. de l'Acad. Royal de Méd., 1838-39.

⁶ Holmes-Coote, Adams: Todd's Ency., vol. ii. Adams, Mercer: Journ. Edgb. Phy. Soc., 1853. Bouvier, Paris: Arch. gén. Méd., xiv. p. 439. Breschet: L. M. and S. Journal, 1835.

⁷ Bouvier.

⁸ Heine, of Constadt Canton.

⁹ Adams, of Dublin.

The head, in the reported dissections, varies from normal to entire absence, its place being then taken by a smooth and flattened place upon the trochanters.

The *acetabulum* has never been found normal, but in no case entirely absent. Certain changes are the most constant—such as:

Smaller than normal, and perhaps too small to receive the head of the corresponding femur.

The normal round and semispherical form may be changed into a flattened oval.

Hypertrophy of the acetabular fat, or "glands of Havers," which is a very common condition.

The cartilaginous cotyloid rim is often wanting.

As has been mentioned, the capsule is at times, though rarely, perforated by the head of the femur, and abnormal attachments of the capsule to the fasciæ are common. The head is not infrequently found buried in the *gluteus minimus*. As a rule, very few or no signs of inflammatory reaction or the formation of a new joint are present.

The *muscles around the hip-joint* are affected in two ways: First, by the alteration in position of the points of insertion—hence the course of the *Gemelli* and *obturator inferior* around the neck of the femur, and the contracture of the *gluteal muscles*; second, atrophy and pallor, induced as an effect of non-use or of pressure made by the displaced head of the femur.

In *incomplete dislocations* the above-mentioned changes in and around the hip-joint are modified by the position of the head upon the rim of the *acetabulum*. Certainly the majority of these changes are due to simple mechanical causes, and no one should hope that a theory, however ingenious, built upon such changes, and having for its object the explanation of the nature and cause of the congenital dislocations of the hip, could command the serious attention of any one possessed of a mind in the slightest degree logical.

We shall next consider those cases which have never walked.

Here the number of authentic dissections is indeed few—fewer than the theories which have been advanced for their explanation. And of these few, quite a number are cases in which the dislocation of the hips was but one of a number of malformations.

Mr. Mercer Adams¹ reports the dissection of a double dislocation in a *foetus*, otherwise much deformed: The *acetabulum* was irregular, but well formed. The head of the femur lay upon the *dorsum ilii*, where it had formed for itself a new cartilaginous *acetabulum*. The axis of the neck of the femur was nearly horizontal, the capsule lax, and *ligamentum teres longèr*, thicker, and stronger than is common in *foetal* life. The thigh and *gluteal mus-*

cles were much atrophied and contracted. Adams believed the cause of the luxations to be contracture of the muscles. It is worthy of note that in this *foetus* a new cartilaginous *acetabulum* should have been formed when a *nearthrosis* is so rare even in cases which have walked.

Parise is quoted by Adams as reporting the case of a child ten weeks old, in which the *ligamentum teres* was elongated and on the stretch.

Dollinger¹ dissected a *foetus* with failure of union of the *symphysis pubis* and *ectopia vesicæ*, and found that the *acetabulum* was so small and altered that the femur head could not be replaced.

Grawitz² reports the following seven cases:

CASE I.—Male *foetus* of eight months' gestation, much deformed. Pelvis small, thin, and delicate. Double dislocation of the hips. *Acetabuli* correspond in size to those of a five-months' *foetus*, and are irregularly oval. The Y-shaped cartilage of the *acetabulum* is decidedly larger than normal, at the expense of the three pelvic bones, which have been retarded in their ossification. The anatomical evidence of this delayed bone formation is found in the microscopical examination of sections from the Y-cartilage. The area of proliferation of the cartilage cells is much narrower than normal, and the formation of these cells into columns is but poorly represented. Head of femur smaller than normal, yet much too large for the intended *acetabulum*. The shoulder-joints are in about the same condition; both are subluxated, and in both the *glenoid cavities* are very small.

CASE II.—Pelvic bones are thin and delicate, but about normal in size. Double dislocation of the hips, upward and backward. *Acetabuli* present; in size, those of a *foetus* several months younger. Again the anatomical evidence of delayed ossification of the pelvic bones is found in the Y-shaped cartilage; slight proliferation of the cells, and failure to form columns. Head of the femur also delayed in its development, yet too large for the *acetabulum*. Child born at term; died twenty-one days later, of *spina bifida*.

CASE III.—Delay of ossification and the same microscopical changes as above, were found both in *acetabulum* and in femur head. Head too large for the socket. Changes most marked in the *acetabulum*.

CASES IV. AND V.—Double dislocations. Femurs cannot be replaced in the *acetabuli*. Heads about normal. Y-shaped cartilages of the *acetabuli* show not only the lack of proliferation of the cells, but also a degeneration of the same, as indicated by their spindle form.

The two following cases, though they belong here, are mainly interesting in the question of etiology:

CASE VI.—Much-deformed infant, with both *acetabuli* small. Right femur is luxated upward and backward; left femur in its proper place. On the right side ossification of the *acetabulum* and growth of the same were delayed, and changes in the cartilage were discernible with the microscope. The head of the femur is too large for its *acetabulum*. On the left side the microscopical examination shows that both the socket and the head have been delayed in ossification, though they still fit one another.

CASE VII.—Much-deformed infant. Left hip normal. Right hip dislocated upward and backward. Microscopical examination of the left side gave the normal picture of growth of bone from cartilage. On the right side, the

¹ Loc. cit.

¹ Virchow's Archiv.

² Arch. path. Anat., vol. lxxiv.

acetabulum small, and the main change found in the ordination of the cells of the Y-shaped cartilage, and especially in that part of the same which is made up from the pubic and ischiatic bones, and not, as in the other cases, in the part supplied by the ileum.

The etiology is, perhaps, the most interesting chapter in the whole subject, and has been only too assiduously studied, if one may judge from the number, variety, and variance of the theories which have now and again been advanced to make plain the why and wherefore of this affection.

Certain etiological factors are shared by dislocation of the hips with other congenital malformations. It is hereditary, and it occurs most frequently in the female sex. With these two settled, others have been added *ad libitum*—of which may be mentioned: injuries and fright during gestation; accidents during childbirth; diseases of the hip-joint *in utero*; an inherent defect of the germ; and, finally, rheumatism, that all-potent disease, as if, says Dollinger, the foetus had caught cold in its bath of liquor amnii.

A short review of the theories which from time to time have been suggested, is necessary.

Hypocrates and the older writers were of the opinion that these luxations were due to injuries; that is, to force, either acting suddenly, as in blows, or slowly, in the form of a preternatural smallness of the uterus.

By some it was supposed that the luxation of the femurs occurred in breech presentations from traction, or the use of the blunt hook. These occur, but are traumatic luxations, and not congenital in the true sense.

Dupuytren and others considered the congenital hip dislocations to be due to an inherent weakness or disturbance of the germ, an aberration of the "autotrophy," or power of self-development inherent in the foetus.

Other theories are: Defective development of the acetabulum, advanced by Breschet, and advocated by Cruveilhier, Sayer, Dollinger, and Grawitz.

Morbus coxarius, advocated by Morell, L'Avalée, and Guérin. A very rare disease in foetal life.

Hydrarthrosis, to prove which, as the true cause, Parise's paper was written.

Hypertrophy of the "Haversian glands," which is a *post hoc ergo propter hoc* argument.

Muscular contraction was advocated by Adams, Guérin, Melicher, and Carnochan.

The theory of *nervous influence* was advanced by Carnochan, who says that "the luxations result from some active morbid muscular contraction; this contraction is to be traced to a morbid condition of the central ganglionic mass of the cord."

To these theories two more must be added, not because they have especial claims for veracity, but rather because of those who have advanced them.

Hueter believed that in the development of the luxated hips, the head of the femur and the acetabulum were not developed opposite one another; forgetting that embryologically they both are formed by a splitting of one piece of cartilage.

Roser thinks that an extreme adduction of the thighs in the foetus *in utero* will explain the luxation, and also why the female sex is the one usually affected; the male genitals, according to his idea, being too sensitive to pressure to allow of their development with the thighs, in their position of adduction, pressing upon the genital region.

Of these theories perhaps only one is really worthy of serious consideration, for it alone rests upon a basis of proven anatomical facts. The theory referred to is that of a mal-development of the acetabulum, advanced by Breschet, and put upon a scientific footing by Grawitz. The latter reminds us that the Y-shaped cartilage of the acetabulum rarely represents the epiphyseal line of the pelvic bones which meet and conjointly form the acetabulum; that the growth and development of the acetabulum and pelvic bones are dependent upon certain formative changes in this cartilage, as is the growth of every other bone dependent upon the changes in its epiphyseal cartilage.

Grawitz examined five cases of congenital dislocation of both femora in children who had not walked, and found that the acetabuli did not correspond in development to the age of the child, and also certain changes in the acetabular Y-shaped cartilage; changes which have not been elsewhere noticed, and which pointed indisputably to a lack of formative development in this structure. The heads of the femora were by no means always found in a normal and healthy condition, but they were larger than the corresponding acetabuli, and their cartilages showed much less sign of disturbed proliferation. And to combat what would probably have been the first and greatest objection urged against his theory—that he had confounded cause and effect, *i. e.*, that the changes in the Y-shaped acetabular cartilage were only secondary, and caused by the absence of the head of the femur from the acetabulum—Grawitz reports two other cases, in one of which the right femur was luxated, but the left in place. Both acetabuli were small for the age of the infant, and both presented the signs of delayed ossification; but on the right side the head of the femur was too large for its socket, while on the left, the head and socket fitted together perfectly. On microscopical examination of these two heads, the cause for the small size of the left was found in the marked evidence of change in its cartilage, while on the right side these changes were much less pronounced. The other case is one of single, unilateral luxation, in which the usual signs of delayed proliferation of the cartilage cells and ossification were

found in the luxated hip, while on the normal side the usual picture of proliferation of the cartilage cells and ossification was found.

In none of the twelve joints examined by Grawitz was there any sign of an arthritis or other joint disease.

Grawitz believes to have shown by these seven cases that in congenital luxation of the hip the cause is to be found in a diminished activity of formation in the Y-shaped cartilage of the acetabulum, while the head of the corresponding femur is not at all, or not proportionately affected. And also that when the diminished formative activity affects both acetabulum and head in the same degree, no dislocation occurs. In no case is the congenital dislocation referable to a synostosis of the Y-shaped acetabular cartilage.

As a similar condition, Dollinger refers to the early synchondrosis of the speno-occipital cartilage producing what has been termed prognathismus; it is also hereditary, and so much so that it is almost a type in certain races.

PROGNOSIS.—Prognosis as to life is good; as to bringing the process to a standstill, is dubious; as to *restitutio ad integrem* is bad. These conclusions, which are borne out by clinical experience, may also be deduced from a consideration of anatomico-pathological conditions.

TREATMENT.—Treatment may be divided into two classes—mechanical and operative.

Mechanical treatment is instituted with two ends in view. The first, and the one which has the more scientific basis and more hope of success, is by means of extension, fixation, support, or the removal of the weight of the body from the capsule in the act of walking, to deprive this affection, in young people, of its progressive character.

The second is, by mechanical means to draw down the head into the old acetabulum, and by keeping it there to produce a cure with *restitutio ad integrem*. But, it would appear, the cause of the dislocation is that the acetabulum is too small for the femur head, hence this treatment is based upon a false premise, and the final results show that the false premise leads to an equally false conclusion.

Operative treatment, with the view of making a movable joint at or near the site of the old acetabulum, has not, as yet, been reported as successful, though it should by no means be placed among the impossibilities. Operative treatment to produce ankylosis in unilateral, or indeed in bilateral dislocations of high degree, is justifiable, and at times the only treatment.

THE National Academy of Science has been in session in this city the past week.

OSTEO-SARCOMA OF THE SPINE, WITH REPORTS OF CASES.¹

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THE purpose of this paper is to present a report of cases of osteo-sarcoma of the spinal column. This location of the disease is rare enough to make the cases unique, and is my only excuse for presenting them. It is not necessary to describe the well-known histological characteristics of sarcomata in general; suffice it to say, that all known histological types of sarcoma may partake of the osteoid type (Joh. Müller, Rindfleisch), and that the osteo-sarcoma may undergo cystic, mucoid, cheesy, and fatty degenerative changes, as in the other sarcomata. The osteoid form, too, is prone, like other forms, to extend to other tissues and organs by metastasis; of these secondary growths more will be said later.

Though osteo-sarcoma occurs usually during early adult and middle life, it is not entirely unknown in advanced age, in childhood, or even congenitally.

Two varieties are recognized by most writers: (1) the *central*, or *myelogenes*, so called because it takes its origin from the medullary canal or diploë; and (2) the *peripheral* or *subperiosteal*. As the cases to be reported include only the peripheral form, the former will not be considered.

The peripheral, subperiosteal, or osteo-chondroma of Virchow is more malignant than the central variety, and is formed of granulation tissue with young bone-cells (Billroth), or of the latter mixed with very large spindle-cells. The presence of bone seems not to alter the natural tendencies of sarcomata to unlimited growth and to recur locally, and, by metastasis, in distant organs and tissues. Of spinal osteo-sarcomata, owing to their rarity, but little is to be found in pathological literature. As trauma seems often to be the starting-point of osteo-sarcomata, the protection afforded the spinal column by a thick pad of muscle, and by the intervertebral cartilages, may explain their rarity in this situation.

Spinal osteo-sarcoma springs usually from the lumbar or lower dorsal vertebra. It may grow from the bodies of any part of the spinal column, and, like other sarcomata, grows with variable rapidity. The tumor is usually globular or ovoid, is generally encapsuled by the periosteum and surrounding connective tissue. If it occur on that part of the column which renders the tumor palpable, it is found hard and resistant to the touch, and usually immovable, because of inflammatory adhesions to the surrounding tissues or organs. One important characteristic is the early involvement of the lymphatic vessels and glands, especially those near the tumor.

¹ Read before the Chicago Medical Society, October 21, 1889.

The early involvement of the lymphatic glands in osteo-sarcoma of the spine, leads to the development of secondary growths in other organs, notably in the abdominal cavity and lungs, the secondary tumors always partaking of the characters of the primary.

The clinical course, in comparison with sarcoma elsewhere, is rapid, as might be supposed from the early involvement of the lymphatics and the rapid occurrence of metastatic growths in other important organs. As a rule, too, the tumor invades the bone at the point of origin, and the growth advances far enough to press upon the spinal cord; or a hemorrhage occurring into the spinal canal causes pressure paretic, or paralysis. Usually the indurated tumors develop more slowly than the softer forms, and the rapidity of growth and malignancy are in direct ratio to the softness of the tumor, which is explained by the fact that the softer form is made up of round cells.

Though the symptoms must necessarily be peculiar to each case, pain in the spinal column at the seat of the growth, with neuralgia of the corresponding spinal nerves, is almost constant. The precursor of this pain is often a general backache, usually located in the lumbar region. The presence of sugar in the blood, as mentioned by Freund, is not of sufficient reliability to make it a safe diagnostic sign of sarcoma in the body; and of peptonuria the same may be said.

The histories and clinical course of my cases are as follows:

CASE I.—Mr. M., aged forty-nine, Swede, married, and stockman by occupation, has lived in America for twenty-five years. Family history free from hereditary taint of any kind. Three brothers and one sister living and in good health. The patient's health has been good until the present illness commenced. Habits vicious in early life, when he had gonorrhœa and a venereal sore, which, however, was not followed by constitutional symptoms. He has used alcohol to excess at times, and has suffered from alcoholic gastritis, with consequent dyspepsia and vomiting.

During the summer of 1888 the patient's general condition of health deteriorated; his appetite became poor, and everything taken into his stomach caused discomfort. Severe, constant, lumbar backache, worse at night, and aggravated by exercise, became a prominent symptom. His trouble was ascribed to drinking the alkaline water of the West.

In September of 1888 he came to his home in Chicago and consulted several physicians, each giving a diagnosis different from the others. His spleen was said to be enlarged, and consequently chronic malaria, chronic dyspepsia, incipient leucocythæmia, etc., were diagnosed.

December 3, 1888, I took charge of the patient. He was then confined to his bed, but able to sit up. He was slightly emaciated and had a cachectic ap-

pearance. His face had a peculiar dusky, red hue, and on the skin of his body and extremities were peculiar brown pigmented spots, from the size of a pea to a silver quarter. The spots were most numerous over his back. One supra-clavicular lymphatic gland of the right side was enlarged to the size of an almond. In the left hypochondrium a tumor, the size of an infant's head, could be felt. The tumor moved vertically with respiration, was ovoid in form, of medium resistance to touch, and only slightly painful on strong pressure. No murmur could be heard. The absence of a defined border and notch seemed to exclude the spleen. The liver, lungs, and heart appeared normal. The blood showed no increase of white blood-corpuscles, though an occasional very large leucocyte could be found. The urine was scanty, of high color, but contained nothing abnormal. The patient complained chiefly of severe aching pain in the lumbar region of the spine, which was always worse at night. The diagnosis was made of probable sarcoma of the spinal column.

I saw the patient frequently until his death, which occurred on January 19, 1889. During that interval the tumor grew rapidly, finally extending forward to the median line, and downward to a line drawn from the umbilicus to the crest of the ilium. The patient daily became more emaciated and cachectic, and the pain in the back could only be controlled by opium.

Ten days before his death the patient complained of numbness in his feet and legs, and on the day following the appearance of this symptom he suddenly became paraplegic. Absolute paralysis and loss of sensation were present below the second lumbar vertebra. Retention of urine and constipation made the case much more difficult to take care of from this time.

The paralysis and anæsthesia gradually extended upward until weakened respiration and cardiac asthenia combined to produce œdema of the lungs and death.

A post-mortem examination was made twenty-four hours after death, and the diagnosis confirmed. A primary, large round cell osteo-sarcoma was found involving the first and second lumbar vertebrae. The body of the first vertebra was softened and broken down by the sarcomatous tissue. A large blood-clot occupying the root of the tumor, extended into the spinal canal, firmly compressing the cord. Secondary tumors were found in the lymphatic glands on the left side of the spinal column, from the last lumbar vertebra upward to the root of the left lung, and also in the bronchial and mesenteric glands. Calcareous deposits were present in both primary and secondary tumors. The spleen, liver, and lungs were free.

CASE II.—Mr. G., German Jew, aged forty-eight, married, merchant. Family history excellent; no history of hereditary disease. The patient's previous health had been excellent, and he had always been sober and industrious, and never afflicted with venereal disease. He had used alcoholic beverages in moderation.

In December, 1888, his health began to fail,

though he presented no well-defined symptoms. His appetite became poor, he gradually lost flesh, and soon developed a slight cough with muco-purulent expectoration. Four or five moderate attacks of hæmoptysis occurred during the first four weeks. His disease was diagnosed consumption by a homœopathist.

On January 30, 1889, he became the patient of Dr. H. Milbacher, of Aurora, to whom I am indebted for a complete history of the case and notes of the post-mortem examination.

On taking charge of the case Dr. Milbacher found the patient complaining of cough with muco-purulent sputa, of sleeplessness, weakness, loss of appetite, indigestion with flatulence, constipation, constant, aching pain in the dorsal and lumbar spine, and lancinating and shooting pain along the course of the intercostal and lumbar nerves of the right side.

A careful examination revealed slight emaciation and moderate anæmia. The temperature and pulse were normal. There was evidence of partial consolidation, in areas, of the left lung, with some pleuritic effusion on the same side. There was tenderness on pressure on the right dorsal and lumbar nerves near the spine. The sputa contained no tubercle bacilli. Urine was diminished in quantity, and contained an abundance of urates, but nothing abnormal. During February there was continued emaciation, anorexia, indigestion, constipation, and cough, with an increase of the morbid process in the left lung. There was also developed marked paresis of the right thigh, with loss of sensibility in the area supplied by the external cutaneous nerve. Several small subcutaneous tumors developed over the abdomen, and one small tumor between the inferior angle of the scapula and the vertebral column on the right side. The tumors were slightly tender on pressure and movable. No tubercle bacilli could be found on repeated examinations of the sputa.

On March 3, 1889, I was called in consultation. The patient was then confined to his bed, and was emaciated, pale, and cachectic in appearance. He complained of aching pain in the dorso-lumbar region, with sharp pains radiating over the lower right chest, right lumbar region, and right thigh. His appetite was poor and his digestion imperfect.

On examination there were found several subcutaneous, irregular, doughy tumors over the abdomen, the smallest the size of a filbert, the largest two or three inches in length, and irregular in outline. Under the posterior border of the right scapula, extending toward the vertebral column, was found a similar subcutaneous mobile mass about the size of a lemon. The tumor fluctuated, and on aspiration yielded blood. There were slight paresis and partial loss of sensation in the right lower extremity. The right chest presented nothing abnormal except the tumor mentioned. The left chest was somewhat less mobile than the right, and there was diminished and absent vocal fremitus, in irregular areas in the mammary and scapular regions. There was relative dullness on percussion over the whole left lung, with marked dullness over the scapular region, and in irregular regions over the anterior surface. There was also evidence of some fluid in

the left pleural cavity. The sputa contained no tubercle bacilli. The urine was normal, and the blood showed only an occasional very large leucocyte.

The cachexia, superficial tumors, slight paresis, and irregular distribution of the signs over the chest, led us to make a diagnosis of osteo-sarcoma of the spine, with secondary growths in the left lung, pleura, and skin. The prognosis, consequently, was death, with probably preceding paraparesis or paraplegia. Dr. F. S. Johnson saw the case subsequently and concurred in the diagnosis.

The patient rapidly declined, with increasing paresis ending in paralysis of the lower right extremity, increase in size of the subcutaneous tumors, and increase of the pleuritic exudate of the left side. The heart's action was weak, with pulse of 110 to 120; temperature usually normal. Death occurred on March 27, 1889, in an advanced stage of asthenia, from heart failure and œdema of the right lung, both induced by a rapid increase of the pleuritic effusion on the left side.

An autopsy made twenty-four hours after death revealed the following condition:

The visceral and parietal pleura of the left side were transformed into a firm white mass, from one-half to one inch in thickness, with a nodulated surface firmly adherent to the sternum, the ribs, pericardium, and diaphragm. The left lung, compressed to one-half its normal size, occupied the upper portion of the chest cavity, and was covered by the thickened, diseased pleura. Within the lung was a large, round, whitish tumor, with a soft colloid central spot. The compressed lung formed a thin capsule for the tumor. The lower portion of the chest cavity was filled with five or six litres of watery, straw-colored serum.

There were two spinal tumors. One, as large as a fist, was attached to the body of the eighth dorsal vertebra, and could be traced into the intervertebral openings of the spinal canal. It covered the anterior surface of the neck of the seventh, eighth, and ninth ribs, being attached firmly to their periosteal covering. There was partial destruction of the body of the eighth rib by pressure, the tumor extending through the opening in the rib to form the subcutaneous dorsal tumor. On section the growth was found to contain blood, partly liquid and partly coagulated. The second spinal tumor, about the size of an orange, grew from the second and third lumbar vertebrae, and was covered by the somewhat atrophied right psoas muscle. There was destruction of a portion of the vertebrae to which it was attached, and an invasion of the spinal canal. The lymphatic glands of the mesentery and omentum were involved. There was one large gland, the size of an orange, in the great omentum just below the transverse colon. Other tumors were found in the kidneys and the pancreas. A microscopic examination revealed a round-celled sarcoma.

CASE III.—Mr. S., aged thirty-seven, salesman, single, American. His family history was free from hereditary taint. The patient had always been temperate in the use of alcoholic beverages, and denied having had venereal disease.

During the last two weeks of May, 1889, the patient, while assisting his family in packing the household goods preparatory to moving, was suddenly seized with severe pain in the right inguinal region, and continued to suffer with sharp pain in that locality, accompanied, he said, with fever. He was decidedly jaundiced. His physician pronounced his case typhlitis. The patient made a quick recovery from the acute attack, and on June 10th arrived in Chicago. When I called to see him he was pretty well nourished and not markedly pale. He walked in a slightly stooping posture, because of inability to extend completely his right thigh without pain. On examination the thoracic viscera, the liver, and spleen presented no abnormal signs. The urine was normal. On a level with the umbilicus, in the course of the ascending colon, could be felt an irregular, slightly movable, and tender mass. This was dull on percussion and easily isolated from the liver and the right kidney.

He was given a large enema of soap and water, which moved his bowels thoroughly, but the tumor did not diminish in size. The patient was then obliged to leave town, and I did not see him again until July 4th, when the tumor had increased greatly in size, was hard, and gave a feeling of fluctuation. The patient was told that it was probably a cyst. He desired Drs. E. C. Dudley and D. A. K. Steele in consultation, and on July 17th those gentlemen examined him, and advised an exploratory abdominal section. At the patient's request, he was transferred to Dr. Dudley's care at St. Luke's Hospital, and on July 30th Dr. Dudley made an exploratory incision into the tumor, after an unsuccessful attempt at aspiration. The tumor was found to be a solid mass, firmly attached to the right sacroiliac synchondrosis, and pushing the peritoneum and ascending colon forward; all being blended and united to the anterior abdominal wall by inflammatory adhesions. The mesenteric glands were enlarged and calcified as far as the finger could explore. The tissue of tumor examined microscopically revealed spindle-cell sarcoma. The patient rapidly recovered from the exploratory wounds, and on August 20th left the hospital for his home in Benton Harbor, Michigan.

September 23d, when he returned to Chicago, the tumor had increased in size, and there was slightly increased emaciation and pallor. There was also a good deal of distress due to flatus. On the 26th, a small abscess formed in the cicatrix of the incision into the tumor, and on opening it, half an ounce of dark blood and pus escaped.

October 1st the patient again returned to Benton Harbor, and his father states, in a letter of recent date, that the wound is still discharging a bloody pus and that the tumor is slowly increasing in size. The hard form of this tumor will make the case of longer duration than the others reported.

235 STATE STREET.

Bromidia.—At Kansas City, Mo., judgment has been given in the sum of \$500 each against seven local druggists for counterfeiting the trademark of the above preparation.

GUNSHOT WOUNDS.

With the Reports of Four Cases.

BY THOMAS H. MANLEY, M.D.,
OF NEW YORK.

In these days of antiseptics and a new technique in the management of wounds it is important that surgeons should report their cases in detail and impartially to the profession.

It is especially imperative to examine into the treatment with the most discriminating care; for one should have the various methods of treatment well fixed in mind, and be prepared for every emergency, before he would assume to deal boldly and confidently with serious gunshot wounds.

It is well, too, that we take a glance at the recent studies on the subject, divesting ourselves for the time of any undue enthusiasm or prejudice. We must look squarely in the face the claims of modern surgery, and determine, if possible, whether the advantages accruing from antiseptics in civil practice are correspondingly great in war; or whether, in certain regions of the body, their application is useless, or harmful.

The relative value of antiseptics to the military surgeon cannot yet be estimated; but their advantages and disadvantages, in wounds resulting from the explosion of firearms and in penetrating wounds, can be determined in civil practice.

A great impetus was given to abdominal surgery through the memorable essay of Sims, presented to the New York Academy of Medicine, in the autumn of 1881. In this the author boldly, and with marvellous energy and convincing argument, advocated abdominal section for almost every lesion involving the peritoneal cavity, whether from disease or traumatism, acute or chronic. There can be no denying that this lucid and skilful exposition of the possible future of the treatment of lesions in the abdominal region had much to do with the extended application of exploratory laparotomy, and opened a new era in surgery.

Many surgeons, especially in America, promptly manifested their acquiescence with the views of Sims, by commencing the treatment of penetrating wounds of the belly by laparotomy. Senn conducted a series of investigations on the abdomens of dogs, and demonstrated that the intestines of these animals would endure almost any amount of mutilation, and make a good recovery.

With the predictions of Sims, and the long, interesting, and successful series of investigations of Dr. Senn, together with the supposed efficacy of antiseptics in preventing infection, it certainly seemed that the treatment of abdominal wounds had attained perfection.

At first, on this side of the Atlantic, we were quite confounded with the brilliancy and originality

of Senn's experiments—supposing that they originated in this country; and we were credulous enough to presume that the deductions reached in these canine investigations would apply to the human being.

Did we think for a moment that Sims's essay was simply the views, theories, and speculations of one known only in his profession as a gynecologist, and whose experience as a general surgeon was so slight as to give but little weight or value to his assertions in this domain of his profession?

And, finally, when we examined the experimental work of the Chicago surgeon—exclusively of the apposition of the gut by lateral approximation, and ballooning the bowel with gas—we find that the whole of this line of intestinal surgery is very old; the only difference being that the older surgeons did their work on man, while Dr. Senn's was confined exclusively to dogs. Messrs. Reybert, Jely, Joubert, Boutard and Amussat, distinguished French surgeons, in the early part of the present century, had separately and severally done resection of the bowel, with enterorrhaphy.¹ They invaginated the bowel, as a means of establishing continuity, after division or exsection. They used the plate, or *tablet*, as they designated it, for lateral apposition of the serous surfaces of the bowel, guided by the same principles in using it on man, as was Senn on animals.

In our haste to put into practice the latest methods, we neglected to institute a comparison between the brute—in which, regardless of antiseptics or drainage, we may eviscerate the bowel by the yard without bad symptoms following—and the human being, whose organs in the abdomen are structurally and functionally unlike the dog's; and on whom we are seldom called to operate, except where shock is marked, and blood has been lost. Finally, the most successful surgeons have altogether abandoned antiseptics in abdominal operations.

Dr. L. A. Stimson,² in a paper of great literary, statistical, and scientific value, collected together the various cases of gunshot wounds of the abdomen occurring in New York during the past eight years, and presented figures of startling significance to those of us who had hoped that modern science had robbed penetrating wounds of the abdomen of their former terrible mortality. His figures showed that, as far as could be learned, the mortality following operative interference in penetrating gunshot wounds of the abdomen was greater than when the older and more conservative plan of expectant treatment was in vogue.

My cases, herein reported, embrace lesions of various regions of the body; but the most recent

case being pertinent to the discussion of penetrating wounds, I will narrate it first:

CASE I.—J. B., aged forty-four, married, shop-keeper, of spare habit, who had previously enjoyed good health, was admitted into the Harlem Hospital, September 13, 1889. When found by the Ambulance Surgeon, Dr. Walter H. Dade, he was lying on his back, almost pulseless; the extremities being cold and the features of a ghastly, ashy white. This was about forty-five minutes after the injury. Restoratives were freely given, and he was hurried off to the hospital.

On admission he was still greatly prostrated, though had rallied somewhat from shock. His pulse was 135 per minute and feeble. His lips, nose, and ears were of a waxy white, and cold. He was vomiting blood freely, and complained of pain in the epigastrium.

On examination, it was found that he had accidentally shot himself with a 36-calibre Smith & Wesson revolver, the ball entering about two inches to the left of the median line and three inches from the navel, passing through the seventh intercostal space anteriorly; then taking a course upward and fracturing the seventh rib, two inches from the corresponding spinous process to the right.

Though probing was not attempted, it was evident that the lung had been torn through, as immediately over the seat of fracture there was considerable bulging of the integument with an extensive margin of emphysema into the loose connective tissue.

This wound was inflicted one hour after he had eaten a full meal, and it is probable that the stomach was distended when the ball entered.

If this were the case, it must have caused great destruction, for on inspecting the relations of the organs and tissues in the cadaver, or carefully considering the anatomical situations of the various structures, it was seen that if the ball passed directly upward and backward, in a straight line, the pleural cavity was perforated; afterward the thin, edge of the liver, and the stomach, the missile crushing through the crus of the diaphragm, opening the pleura and lung again, posteriorly, to be arrested only in its transit by the rib, which it shattered.

It seemed positive from the subjective and objective symptoms that three important organs and two cavities were perforated, viz., the liver, stomach, and lung, with both the pleural and peritoneal cavities. He undoubtedly was suffering greatly from loss of blood when admitted, as proved by his exsanguinated condition and the protracted shock. The emphysema and hæmatemesis were strong evidences of lung and stomach lesions.

It was not deemed advisable to jeopardize his life further by any kind of operation. He was given cracked ice, and laudanum unsparingly for the purpose of tranquillizing the mind and relieving pain. The bullet wound was antiseptically dressed, and a firm binder applied around the thorax. During the first night he had considerable pain in the abdomen and chest, but in the morning felt better. Stimulants and light nourishment were then freely given.

¹ Operative Surgery and Surgical Anatomy. By C. Bernard et Ch. Huette (De Montargis), Paris.

² N. Y. Med. Journal, Oct. 25, 1889.

The remainder of his history is uneventful. He made a good recovery. Ten days after his admission, the swelling having subsided, the ball was felt under the skin posteriorly, and removed. He left the hospital on Oct. 2d, entirely restored to health, though he was yet somewhat weak.

CASE II.—D. J., aged thirty-three, policeman, was shot on the morning of July 2d, the ball entering the body about three inches to the right of the sixth chondro-sternal articulation. No wound of exit could be found. The bullet was discharged from a 36-calibre revolver—the man's own weapon—and was fired while the muzzle was in close contact with the skin, as the latter was considerably burned and blackened by powder.

The wound was not probed. He was suffering considerably from agitation of mind when admitted, though it was clearly evident that he had lost but little blood. It was quite clear that the missile had not entered the thorax, for if it had, and taken a horizontal line backward, it must needs have penetrated both the peritoneal and pleural cavities, and done terrible havoc with the convex surface of the liver, which mounts upward nearly to the nipple-line on this side; and, moreover, the spongy, vascular tissue of the lung would have given rise to free hemorrhage had it been perforated.

The ball undoubtedly struck a strong, flexible rib, which deflected it in a direction where but little harm was done. We could find no trace of the missile, for, though of considerable size, if it were lodged in the body, there was no swelling, soreness, or pain which gave the slightest clew to its whereabouts. I am inclined to believe that it did not enter at all, but that after its velocity was broken by the resistance of the rib, it rebounded and fell to the ground.

This man left the hospital one week after admission, in good condition, though with some soreness over the seat of injury.

CASE III.—S. L., aged twenty-four; bartender. On Monday, June 12, 1889, while in an altercation, he was shot. He was brought to the Harlem Hospital immediately after being wounded, by the ambulance. On admission, it was found that the ball had struck exactly in the centre of the chin—at the symphysis mentis—and at its point of impact had detached a small, shell-like piece of bone. The fellow suffered none from shock, and was out in a week.

Not the slightest trace of the ball could be found. There was no evidence of its having lodged anywhere in the body. The day after admission, he had some deep-seated pain in the region of the cervical plexus, but this could be accounted for by the violent struggle with his assailant before the shot was fired, and in which he may have strained the muscles of the shoulder.

As in the preceding cases, I am inclined to believe that the ball rebounded and came out as it entered.

Baron Larrey¹ mentions several such cases, in his experience, as does also Guthrie.²

¹ *Chirurgie Militaire*, vol. ii. p. 217, 4th ed.

² *The Surgery of the War of the Peninsula*, vol. i. p. 374.

CASE IV.—J. H., aged thirty-one, was shot on October 13th. As he saw his antagonist draw his pistol, the patient threw up his arm as a shield. As a result, his head was saved, but he received the ball in the dorsal aspect of the right forearm, about midway between the wrist and elbow.

When I saw him the following day, there was considerable infiltration into the connective tissue, accompanied by swelling and discoloration. The skin was of a dark yellow color, mottled, and of a decidedly ominous aspect. I made a free incision into the parts, with a view of relieving the turgescence of the vessels and exploring for the ball. Careful probing in every direction failed to reveal the bullet.

The following day he felt so much better, and the circulation was so much improved, that he asked to go home, saying that he was well able to pay for professional service. I am informed that he is doing well.

I am aware that in the brief summary presented each report has neither been full nor possessed of much value, but the cases taken collectively teach important lessons:

1st. That we have yet no accurate method for locating missiles when lodged in the body.

2d. That with the expectant, or rather the conservative plan of treatment, many serious traumas of the great cavities may terminate favorably.

3d. That *opium* must be given with a free hand until shock is past and pain is subdued.

4th. It seems probable that under certain circumstances a bullet may, after coming in contact with a firm, strong, resisting body, rebound and not lodge in the tissues; hence the uselessness, and sometimes the danger, of free probing in this class of injuries.

TORTICOLLIS GREATLY IMPROVED BY TOXIC DOSES OF GELSEMIUM AFTER FAIL- URE OF MYOTOMY.

BY CHARLES B. WILLIAMS, M.D.,
CLINICAL ASSISTANT IN THE PHILADELPHIA POLYCLINIC.

THE case here reported is that of a man aged twenty-four, who was admitted to the Polyclinic Hospital Oct. 24, 1888. His family history was good. His previous history negative, excepting that he has had several slight attacks of torticollis, and a number of falls upon the shoulders and neck, and has suffered from rheumatism. In the autumn of 1886 he noticed a jerking of his head and neck to the left side, associated at times with severe pains. This continued and gradually grew worse for a year, when he began to have also twitchings of the left arm and leg. He soon lost entire control of the left foot and could not stand properly. After three months of medical treatment he began to have more control of his leg. When he first came under observation he described the muscular twitching as being more like a tremor. While the patient was sitting quietly no spasm was noticed, but on attempting to walk, use his arms, or move his head, a cramp or spasm oc-

curved in the muscles of the neck, and his head was turned to the left. The chin and face did not turn upward, as would be the case if the right *sternocleidomastoid* muscle was affected, but rather horizontally and outward; hence it was believed to be the *splenius capitis* muscle of the left side that was affected. Any voluntary muscular action would cause the spasm. On Nov. 2, 1888, a myotomy was performed by Dr. John B. Roberts upon the muscle that was supposed to be the source of the torticollis, but with no beneficial results. Dr. Roberts furnished the following description of the operation:

"On account of the peculiar twist of the head, which seemed to imply that the *splenius capitis* was at fault, I determined to divide the left *splenius capitis* instead of the right *sterno-mastoid*. Accordingly, on Nov. 2d I exposed the muscle, and proceeded to do a partial myotomy, dividing the belly of the muscle throughout its entire thickness, but leaving a band of fibres upon each edge intact, hoping in this manner to weaken without destroying muscular action. This was done because it was not absolutely certain that I was cutting the muscle which produced the spasm, and, in order that I might at any time during the after-treatment bring the fibres together, if the torticollis was not improved, I introduced a wire suture through the cut edges, crossing the ends and bringing them out through the skin, thus causing a loop underneath the skin, so that traction on the ends would draw the muscular bellies together. For a day or two some improvement was perceptible, which caused me to withdraw the suture and allow the fibres to remain retracted. The head and neck for some time was kept in position by a plaster-of-Paris bandage, and it was believed that something was gained by the operation. Within two weeks, however, the spasm returned. I then made a subcutaneous division of the *splenius* muscle with so much freedom that I believed I had divided all its fibres. The results were again unsatisfactory. There was temporary improvement, but it soon became evident that the condition was practically no better. Any violent motion, such as walking or the use of his arms, at once brought on a spasm, in which his head was twisted to the left, with considerable pain in the back of the neck and in the shoulder of the left side. Rigid muscles could also be felt in the *splenius* region."

Electricity was also used without benefit. He was next placed upon the fluid extract of gelsemium in ordinary doses, but without relief. Dr. S. Weir Mitchell then suggested hyper-physiological doses of the drug.

On Dec. 29, 1888, the patient was admitted to St. Agnes Hospital in an unchanged condition. He was placed upon full doses of the tincture of gelsemium without the production of any physiological effect. He was then placed upon full doses of Wyeth's fluid extract of gelsemium, the dose being gradually increased so that by Feb. 1, 1889, he was taking twenty-three drops three times a day.

The physiological action of the gelsemium was now manifested by dilatation of the pupils, languor, some headache, and flushing of the face, with slight at-

tacks of giddiness; the patient describing his sensations as though a band were tied around the forehead. On Feb. 4, 1889, he was taking ten grains of the salicylate of sodium, and five of iodide of potassium three times daily, with eighteen drops of extract of gelsemium four times daily. On March 15, 1889, the administration of other drugs was discontinued and the gelsemium increased to twenty-four drops four times daily, with the same effects as above noted. The patient, who was intelligent, was allowed to regulate the dose of gelsemium according to its physiological effects, being instructed to take the largest possible dose. The patient, much improved in his condition—in fact, almost entirely free from pain and spasm, was discharged from the hospital March 26, 1889, and subsequently returned to work.

A letter from him, dated June 9, 1889, stated that at that time he was still improving, and was taking ten to fifteen drops of the gelsemium five times daily. He had found that twelve drops of a preparation of gelsemium from Allegheny City were stronger than thirty drops of that obtained in Philadelphia, showing how great is the difference in the relative strength of preparations of powerful drugs as prepared by different chemists.

The commencing dose of gelsemium should never be greater than two to three minims, as alarming symptoms have been caused by larger doses. It seems remarkable that this patient could take such enormous doses apparently with no ill effect.

A somewhat similar case of torticollis was treated by Dr. C. K. Mills and Dr. Roberts at the Polyclinic a few months previous to the admission of this patient. In their patient, however, the spasm appeared to be chiefly of the *sterno-mastoid*, though it affected a number of the posterior cervical muscles. The characteristic uplifting of the chin showed contraction to be of the opposite *sterno-mastoid*. This patient, in order to keep his head from being turned violently to the right, constantly kept between his teeth the knotted end of a handkerchief, and with the other end in his left hand was able to oppose the spasm. The habitual position of his shoulders and back seemed to indicate that numerous muscles were affected by the spasm. His head and shoulders were constantly bent forward in addition to the constant clonic spasm produced by the *sterno-mastoid*.

Dr. Roberts in this case excised about one inch of the spinal accessory nerve, making the incision posterior to the left *sterno-mastoid* muscle. The nerve was recognized with absolute certainty by means of the electric current. No benefit followed this operation. The patient has not returned for treatment, though efforts have been made to find him in order to test the virtues of gelsemium.

HOSPITAL NOTES.

LATERAL CURVATURE OF THE SPINE—
HIP DISEASE.

*Abstract of a Clinical Lecture
Delivered at the Children's Hospital, Philadelphia.*

BY JOHN ASHHURST, JR., M.D.,

PROFESSOR OF SURGERY IN THE UNIVERSITY OF PENNSYLVANIA.

PROFESSOR ASHHURST showed the class a case of marked lateral curvature of the spine, which was made evident by following downward the line of the spinous processes, and explained that the bodies of the vertebræ were rotated to a greater extent than appeared externally. In the present patient the spinous processes of the dorsal region curved to the right, and on the same side was to be seen a sharp projection caused by the tuberosities and angles of the ribs. In this affection two curves are always found, the one compensatory to the other, the primary curve usually being the lower, though the upper is more distinct.

The predisposing cause of lateral curvature is relaxation of the ligaments, and the exciting cause some malformation of the body, or some vicious habit of standing or sitting. For example, if one limb is shorter than the other, the pelvis will be tilted upward on one side and a curve produced in the spine. The military position of "standing at ease," with one foot forward, has the same tendency. Another cause is sitting at too high a desk, which necessitates the elevation of one shoulder.

Lateral curvature is frequently met with in young girls, but in the majority, as they advance to womanhood, it disappears or becomes too slight to be noticed. Often the first sign is observed by the mother, who will say that the child's shoulder is "growing out." On examination it is found that the scapula does project, and that there is already some deviation of the spinous processes, the principal curve usually being above and toward the right side.

Treatment in the earlier stages can usually be satisfactorily conducted by the correction of improper positions and by gymnastic exercises. When a girl is found with the scapula projecting, and some pain in the part, she should be directed to lie flat on her back for an hour each day. Desks should be made of the proper height, and children should be trained to sit before them without elevating a shoulder. If, as is not infrequently the case, children fall into the habit of "standing at ease," with one foot advanced, the habit should be broken. Patients should be made to sleep upon a firm mattress, with a single pillow under the head, but not under the shoulders. Useful gymnastic exercises are those which cause the arms to be elevated, such as swinging from a horizontal ladder, or the use of pulley weights.

When, however, the disease is further advanced an apparatus is advisable, which, for most cases, should have a pelvic support and means for reinforcing the weakened spine. In very bad cases a plaster jacket gives better support than a brace, and has been used in the case before the class.

Professor Ashhurst then showed a case of antero-posterior curvature, or Pott's disease, in which the deformity was angular and without any lateral curvature. Pott's disease is a more serious affection than lateral

curvature, as it involves the bones of the vertebral column instead of the soft structures. Usually more than one vertebra is diseased, causing a projection of several spinous processes, as was well shown in this patient.

There are certain distinctive risks and dangers in lateral curvature, of which contraction of the chest and consequent interference with respiration are the most important. Such a condition seriously complicates pneumonia or pleurisy. In its milder forms, however, lateral curvature is not a grave disease, but merely a deformity.

HIP DISEASE.

Professor Ashhurst then brought before the class a case of hip disease in the third stage, with abscess, in which he proposed to perform excision of the joint. An incision was made in the line of the muscular fibres above, curving around the back of the trochanter, and continuing below in the direction of the muscle. Such an incision exposes the joint thoroughly without unnecessary disturbance of the tissues. On passing the fingers into the wound, it was found that not only the head of the femur but the acetabulum was involved. The head of the bone was then turned out of its cavity, sawn off, and the end rounded with bone forceps, this step being of importance, as cases are recorded in which a spiculum of bone has penetrated the femoral artery or vein. During the manipulations an abscess in front opened into the wound, which necessitated thorough washing out of the cavity. A counter-opening was made in the anterior wall of the abscess, and a drainage-tube inserted through the wound. The wound was then sutured and dressed in the usual manner.

Professor Ashhurst said that excisions of the hip were less satisfactory than any other of the large excisions; not that, among children, many died from the operation, but satisfactory cicatrization was less likely to be obtained. Whether this is due to the presence of tuberculosis, or whether it is merely due to the difficulty of securing proper drainage, cannot be positively determined. Professor Ashhurst believed that tubercles were often, though not invariably, present.

CLINICAL MEMORANDA.

GYNECOLOGICAL.

Mania following Gynecological Operations.—I wish to supplement the cases of mania following gynecological operations, reported by Dr. T. Gaillard Thomas to the New York Academy of Medicine, as published in THE MEDICAL NEWS, April 13, 1889, with two cases that have occurred in my practice.

CASE I.—Mrs. E., aged thirty-five, was operated upon by Dr. J. H. Etheridge, in the Presbyterian Hospital, Chicago, in November, 1888, for salpingitis and cystic ovaries. Both tubes and ovaries were removed. The patient was much reduced, and was a typical case of hystero-neurosis, there being scarcely any organ or part of her system but which, during the previous six months, had suffered from derangement of function or sensation. She had been extremely melancholy, and, since her recovery, says that those six months are nearly a blank to her, only occasional incidents being remembered, and

those generally in an exaggerated or ridiculous manner. On the third day after the operation acute melancholia set in, and she was wildly delirious for seven days. On the twelfth day she became calm and rational; said she felt better and would get well. There has been no mental aberration since; neurotic disturbances, such as pain in back, knees and heels, have troubled her to some extent, but have been greatly benefited by galvanism. She is being gradually restored to health.

CASE II.—Miss H., aged twenty-four. Family history shows a taint of insanity, a brother having been treated in an asylum, and her father died an inebriate. She had cerebral meningitis at seven, and a second attack at thirteen. Puberty occurred at fourteen. Becoming frightened at the first menstrual flow, from ignorance of its nature, she ran to a creek near by and sat in the ice-cold water, washing herself until the flow ceased. Pain and severe suffering occurred at each succeeding menstruation. During the succeeding ten years she was treated by several physicians. She suffered much from acute pain in both ovarian regions, nausea, headache, and frequent attacks of metro-peritonitis. She became impatient, irritable and restless, and life became a burden to her; had attacks of acute melancholy, and was an inmate of the Mt. Pleasant, Iowa, Asylum for eight months. She was sent home as being "improved."

When consulted in February last, I found her to be fairly nourished. She still had acute pain, nausea, and headache at each menstrual period, with frequent attacks of melancholia, irritability, and religious fervor; bowels very constipated, and appetite capricious, besides many minor symptoms. There was vaginal hyperæsthesia; the broad ligaments on either side were thickened and exquisitely sensitive. In view of her mental condition, and the length of time she had been affected, there was but little hope that a removal of the uterine appendages would accomplish more than to relieve the periodical distress incident to menstruation. She eagerly requested an immediate operation, willing to take any risk that promised her immunity from her sufferings. I removed both tubes and ovaries, a few days later. There were adhesions, which made it difficult to bring the ovaries up out of the pelvis. Both were cystic; in one all, and in the other nearly all normal ovarian stroma had been destroyed. The tubes were enlarged and thickened. On the ninth day violent delirium of a melancholy type set in, and she died on the twelfth day, comatose. An autopsy showed the abdominal and pelvic cavities to be clean and odorless. The ends of the ligated stumps were wholly free from suppuration. Complete union had occurred throughout the abdominal incision.

In opening the calvarium, the skull was found to be extremely thick and hard. At no point along the line of section was it less than three-eighths, and in many places it was fully one-half an inch in thickness. The dura mater was very vascular, and so intimately adherent to the skull that great violence was necessary to strip it off, and it plainly showed the results of old inflammations. The surface of the brain was much congested, as was also the choroid plexus. The brain was well formed, the convolutions well marked, and the sulci remarkably deep. The cerebral substance was apparently normal.

E. H. KING, M.D.

WEST LIBERTY, IOWA.

MEDICAL.

Lozenges of Pyrethrum and Pilocarpine for Relief of Dryness of the Throat and Mouth.—I have used with much satisfaction for the relief of the uncomfortable sensations of heat and dryness which characterize many acute and chronic affections of the mucous membrane of the mouth and throat, a lozenge made according to the following formula:

Fluid extract of pyrethrum . . .	2-3 minims.
Pilocarpine hydrochlorate . . .	$\frac{3}{4}$ grain.
Pure extract of licorice . . .	2 grains.
Powdered acacia . . .	2 "
Glycerin . . .	1 minim.
Sugar, enough to make . . .	20 grains.

The lozenge is allowed to dissolve in the mouth, and one is used every two, three, or four hours, as may be indicated. Should more frequent use be necessary the quantity of pilocarpine should be reduced. The addition of two grains of ammonium chloride will often be beneficial in subacute inflammatory conditions of the mucous lining of the respiratory tract; while in more chronic affections, two or three minims of the oleoresin of cubebs will serve a good purpose. The lozenge has a pleasant pungency, and its effect in keeping the parts well moistened is quite marked.

Speakers and singers have told me that the use of a lozenge just before lecture or performance has made it possible to do work comfortably which otherwise would have caused much pain and fatigue. It is possible that a little extract of coca might be advantageously added for special occasions of this nature.

The lozenges are skilfully prepared by Mr. Frank S. Morgan, of this city, and are dispensed by him under the name of *trochisci pyrethri et pilocarpinae*.

SOLOMON SOLIS-COHEN.

219 S. SEVENTEENTH ST.

TOXICOLOGICAL.

Tyrotaxon Poisoning.—On May 29, 1889, about 9.30 A.M., I was called in great haste to see Mrs. R., of this city, who, her husband said, had been taken suddenly and violently ill. While on our way to the house Mr. R. complained of feeling very weak, nauseated, and dizzy, and had a choking sensation. Within fifteen minutes I was at the bedside of his wife. I found her suffering great pain in the region of the stomach, and a severe headache, with dryness of the throat, extremely weak and nervous, with some delirium and convulsive movements of the limbs. Her pulse was 124, weak, and irregular; temperature 99.5°; her pupils fully dilated. Upon inquiry I obtained the following history: Mr. and Mrs. R. were perfectly well previous to breakfast. They ate breakfast at 7.30 A.M., which consisted of milk-toast, coffee, and milk. Before the meal was finished Mrs. R. complained of severe headache, roaring in her ears, and dizziness. Convulsive movements of the limbs soon began, accompanied by a choking sensation; she grew weak so rapidly that she required assistance in reaching her bed. In five or ten minutes she became delirious, and in less than half an hour was totally unconscious, in which condition she remained ten or fifteen minutes, during which time there was an involuntary discharge of urine. The convulsive movements of her limbs con-

tinued until consciousness was restored, and more or less for half an hour following, and the choking sensation still longer; the headache grew worse, and the patient complained of severe pain in the region of the heart. "I feel as if my heart was being crushed between two solid bodies," she said. I administered an emetic dose of sulphate of zinc, which produced free emesis. The convulsive movements stopped immediately, but pain in the head and heart continued until they were relieved by nitrite of amyl. She remained weak during the day; the next morning was able to walk, but owing to extreme weakness, any exertion produced marked palpitation of the heart. At the end of seven days she had completely recovered.

Mr. R., who ate none of the toast, but drank of the milk in his coffee, felt no ill effects until some twenty or thirty minutes after his wife was taken sick, when dizziness compelled him to lie down; he became faint, but did not lose consciousness. His wife's serious condition aroused him, and he came for me, a half mile distant. On the way he experienced a choking sensation, pain in the chest, and headache. He afterward remarked: "I should have considered myself a sick man if my wife had not been so much worse." The milk used had been delivered the day previous about 9 A.M.; received in a tin pail with close-fitting tin cover, and placed at once in the cellar-way, near the cellar-stairs, and close by an open window. Part of the milk was used for milk-toast and part for coffee. That part used for the toast was heated to near the boiling-point, thickened with corn-starch, poured over the toasted bread, and eaten while hot. The milk used freely in the coffee was not heated. Suspecting tyrotoxicon poisoning, I procured the unused portion of the milk for analysis. Mr. Novy, instructor in hygiene and physiological chemistry in the University of Michigan, made a thorough analysis, and found tyrotoxicon present in large quantities.

JOHN MARTIN, Ph.M., M.D.

UNIVERSITY OF MICHIGAN.

MEDICAL PROGRESS.

Treatment of Gonorrhœal Orchitis.—DR. CASTEL, in *L'Union Médicale*, October 10, 1889, draws attention to the value of internal medication combined with compression and refrigeration, in the treatment of gonorrhœal orchitis. Salicylate of soda, first recommended by Edward Henderson, he has found of use in alleviating the pain and hastening resolution. Observations in the Hospital du Midi prove that after the administration of this drug the majority of the patients found greater relief in twenty-four hours than after other methods of treatment. The duration of the disease was diminished, the painful symptoms disappearing and swelling being reduced in a short time. Six grammes of the salicylate of sodium were given daily. *Anemone pulsatilla* has lately been highly recommended, and given in the following mixture Dr. Castel considers it about equal in value to the salicylate:

R.—Simple syrup . . . 120 grammes.
Tincture of pulsatilla . . . 30 drops.

A half teaspoonful every two hours. Both drugs have a decided and rapid action upon the seat of pain and cause almost immediate cure.

To obtain compression, Dr. Castel uses Langlebert or Horand suspensory bandages, which are composed of a thick pad of cotton, a piece of rubber cloth pierced for the passage of the penis, and a bandage. The wadding is applied directly to the scrotum. The rubber cloth is placed over it to keep the diseased parts moist, and the bandage supports all and compresses the diseased organs. The effect of a well-applied dressing gives immediate relief, and patients are not obliged to stay in bed, but can walk with ease. The constantly increasing moisture necessitates the renewing of the dressing every four or five days.

Refrigeration is a rapid and decidedly efficacious treatment for the pain of orchitis, particularly in the few cases where the testicle itself is inflamed. In cases where the epididymis and the cord only are affected, as is usual, the good effect of cold is denied by many. Refrigeration is usually obtained by applying ice-bladders to the inflamed parts, and the applications should be methodically continued until all signs of inflammation disappear, or troublesome relapses may occur. An excellent method of obtaining the effects of cold is to apply, for a few moments daily, a simple pad of wadding cooled by a jet of chloride of methyl. This causes the dartos to contract and the skin to become cool and pale. To avoid cutaneous lesions, persistent erythema and vesication, any one of which would prevent the continuation of the treatment, the application should be removed in a few seconds.

Treatment of Barber's Itch.—DR. ROSENTHAL orders the diseased skin to be closely shaven, and the following ointment well rubbed in twice daily:

R.—Acid. tannic. . . . gr. xlv.
Sulphur præcip. . . . ʒjss.
Zinci oxid. } . . . aa ʒjv.
Amyl . . . }
Vaseline ʒj.—M.

A month's treatment with this is usually sufficient to cure the disease.

Dilatation of the Stomach in Syphilis.—In the recent International Congress of Dermatology and Syphilography DR. JULLIEN, of Paris, stated that he had observed a number of instances in which dilatation of the stomach developed in tertiary syphilis, and believed that it was in many instances the cause of nervous symptoms which were usually attributed directly to syphilis. Large doses of the iodide of potassium were, he thought, not infrequently the cause of the dilatation.

Treatment of Appendicitis.—DR. SENN thus summarizes his opinions on the operative treatment of appendicitis:

1. All cases of catarrhal and ulcerative appendicitis should be treated by laparotomy and excision of the appendix as soon as the lesion can be recognized.
2. Excision of the appendix, in cases of simple, uncomplicated appendicitis, is one of the easiest and safest of all intra-abdominal operations.
3. Excision of the appendix in cases of appendicitis before perforation has occurred, is both a curative and prophylactic measure.
4. The most constant and reliable symptoms indicating the existence of appendicitis are recurring pains and circumscribed tenderness in the region of the appendix.

5. All operations on the appendix should be done through a straight incision parallel to and directly over the cæcum.

6. The stump, after excision of the appendix, should be carefully disinfected, treated with iodoform, and covered with peritoneum by suturing the serous surface of the cæcum on each side over it with a number of Lembert stitches.

7. The abdominal incision should be closed by two rows of sutures, the first embracing the peritoneum, and the second the remaining structures of the margins of the wound.

8. Drainage in such cases is unnecessary, and should be dispensed with.—*Journal of the American Medical Association*, November 2, 1889.

Version in Contracted Pelves.—NAGEL has recently studied this subject, and compared version with forceps delivery in cases of contracted pelvis. His conclusions are, that version is usually preferable. The most common varieties of contraction are, the symmetrically contracted (justo-minor), the flat pelvis, and the flat rachitic pelvis; and the author believes that podalic version is equally indicated in these three forms. He considers the measurement of the diagonal conjugate of little practical value, and measures the true conjugate only. The shortest true conjugate in his cases measured three and one-eighth inches. His record is 60 versions in contracted pelves, without a maternal death; 61 children were delivered, 46 of whom lived. Version should be performed early; mortality and morbidity increase with the duration of labor. The obstetrician must not delay until the os is fully dilated, but should perform version as soon as the hand can be introduced and the breech brought into the cervix, when uterine contractions generally dilate the os sufficiently to permit birth. So long as the membranes have not ruptured the case should be left to nature; but in transverse positions, when the membranes rupture, version should be performed at once, and extraction follow as soon as the os is sufficiently dilated. Nagel considers the use of the forceps after version unjustifiable. He performed version in all grades of pelvic contractions, as it affords the fetus a chance for life, and perforation of the after-coming head has been no more difficult than when the head presents.

In delivering such cases, Nagel relies chiefly upon external pressure upon the head through the abdominal walls. Traction should not be made upon the trunk until flexion is well established. At the moment when the head emerges undue haste is to be avoided, as children may survive after a delay of five or ten minutes.—*Dublin Journal of Medical Science*.

Tongue-tie.—DR. TASSIUS, of Berlin, protests against the indiscriminate cutting of the frænum linguæ for tongue-tie, and considers that this tiny and admirably constructed organ is a correct regulator of the various movements of the tongue, and that, if the same be too hastily interfered with, the more delicate movements may be forever destroyed—a momentous fact for those destined to become public singers. He advises his medical brethren, therefore, to proceed very cautiously, and not to operate at too early an age, as much improvement may result from the advancement of general development. Only in those cases in which the frænum is

so abnormally large and tendinous as to cause a fissure in the tip of the tongue may the incision be made at once, but it should be calculated almost mathematically what proportion the depth of incision should bear to the fissure. The author deprecates, therefore, the use of scissors, as not to be depended on, and advocates the employment of a small knife, the incision to be made obliquely from below upward. Where the frænum is of fleshy character, and it is, consequently, certain that the child will never gain distinction in singing or elocution—there is, according to Dr. Tassius, no cause at all for immediate interference, unless the deformity causes a real impediment. It is far better to leave such cases—at any rate, for some time—entirely to the *vis medicatrix naturæ*.—*Weekly Medical Review*, October 26, 1889.

Digitalis in Aortic Regurgitation.—DR. GRAHAM STEELL says, in the *Practitioner*, that it has long been a disputed point whether digitalis is contra-indicated in cases of aortic incompetence or not. The chief reason assigned for the rejection of its use is the prolongation of the diastole, which the drug is known to induce. Considering the question from the practical standpoint, he unhesitatingly affirms his belief, as the result of his clinical experience, that aortic incompetence offers no contra-indication to treatment by digitalis.

Local Treatment of Syphilis.—M. HALLOPEAU believes that local antiseptics should be systematically used in all accessible manifestations of syphilis, as each of these manifestations should be considered a centre of reinfection. This fact is evidenced by those syphilides which first appear as a papular or an initial tubercle, and around which lesions, appear, after variable periods of time, other papulæ of which each in its turn becomes a new centre of infection. Local treatment in these cases is a powerful aid to the general treatment, and should, therefore, be employed. If a profound and energetic effect is desired, recourse must be had to the caustics, of which the acid nitrate of mercury and powdered corrosive sublimate are the most used. It is well known that acid nitrate of mercury is a powerful remedy in the case of syphilides of the mucous membrane. Specific vegetations, which have resisted many months of general treatment, disappear after one or two cauterizations.

It is the same with lingual patches and ulcerations. The fear of the pain that the application causes has often prevented its being used; but cocaine makes, to-day, the use of it almost painless. The cauterization of the mucous syphilides by nitrate of silver, which is only moderately efficacious, should be abandoned, and universally replaced by cauterization with the acid nitrate of mercury. Powdered corrosive sublimate exercises a caustic action which should be closely watched, for it should be limited exactly to the part which one wishes to reach. It can be used as a means of aborting very recent chancres if unaccompanied by adenopathies indicating the generalization of the disease; and though the attempts made in this direction have been so far unfruitful, they are few in number, and should be repeated.

The continuous application of sublimate solution of a strength varying from 1-500 to 1-2000 is of the greatest service; the diseased parts are covered with compresses impregnated with the solution, then with oiled silk; this forms a sort of permanent local bath. Not painful, and

of easy use, it constitutes one of the surest means of rapidly improving specific ulcerations. The same solutions are useful against the buccal manifestations of the disease. Ointments containing calomel and corrosive sublimate are much used; they should not be too concentrated. Excellent results have been obtained with the ointment of salicylate of mercury containing from one to twenty per cent. A valuable means of causing a rapid and energetic action on a localized manifestation is the subcutaneous injection of a mercurial preparation, but small doses only should be used. Syphilides of the respiratory organs can often be effectually combated by inhalations of vapor obtained by letting a pinch of cinnabar fall upon a red-hot shovel.

Iodoform, besides being an antisyphilitic, is, at the same time, an antiseptic, and, on this account, of great service in the treatment of fetid syphilides which develop on the vulva, anus, or the extremities. Iodoform should not be used on large surfaces where there is danger of absorption and toxic symptoms. It should be applied either in powder, as an ointment with vaseline, as a solution in ether, or, finally, in the form of gauze or Unna plasters. In the words of M. Diday: "Local treatment is always useful, it is often necessary, sometimes indispensable."—*L'Union Médicale*, October 8, 1889.

Naphthalin Injections in Cold Abscess and Chronic Adenitis.—In place of iodoform, as in injection in chronic abscesses and adenitis, DR. HENRI LASSERRE advises naphthalin solution. The naphthalin is harmless, strongly antiseptic, and can be dissolved in water containing a small amount of alcohol. The following is the formula used:

R.—Naphthalin 3iss.
Alcohol f 3jss.
Aquæ f 3ijss.—M.

The water should be added hot, and the whole filtered before using. Previous to the operation the bottle containing the solution should be placed in a warm-water bath, and the syringe in a warm antiseptic solution, else the naphthalin will be deposited in the canula. The pus should be evacuated, and the cavity slowly distended with the solution.—*Wiener medizinische Presse*, October 13, 1889.

Fish Poisoning.—In connection with an editorial on Fish Poisoning, in a previous issue of THE MEDICAL NEWS, it may be of interest to note some further suggestions of MR. LAWRENCE-HAMILTON, as to the preservation of fish. The foundation of his advice is, cleaning and bleeding fish the moment they are taken from the water, and keeping them frozen from that time until consumed. To accomplish the latter, he advises that dry-air refrigerator steamers should be constantly on the fishing grounds to receive the fish and transport them to market. The temperature of the refrigerators should be considerably below the freezing point. In addition, the fish should be packed in peat moss, to keep them separate from each other.

[However wise the latter precautions may be, we fear they are too Utopian for us to hope that they will ever be adopted, though the gutting and bleeding of fish when caught is a simple matter, and should be insisted upon.—EDITOR.]

Salol has been found very effective in the treatment of slight burns, being applied as an ointment, containing three per cent. of salol, lanolin forming the base.

As an agent for preserving the teeth and gums, salol, from its antiseptic properties, has special claims on our attention. Salol has demonstrated its great usefulness as a toothwash, particularly for decayed teeth. A general formula for such a wash is: Salol, gr. xx; Tinct. cochinell, ℥ viij; ol. menth. pip., ℥ iij; attar of rose, ℥ iij; sp. vini rect. dil. ad ℥ iv.—M. Dissolve the salol in rectified spirit together with the essential oils, and then add sufficient water. Such a mouthwash leaves a very refreshing taste, the odor of salol resembling the fragrant smell of oil of wintergreen.—*The Pharmaceutical Journal of New South Wales*, September 16, 1889.

Menthol in Phthisis.—DR. BRAMWELL uses, apparently with good results in some cases, the intra-laryngeal injection of oily solution of menthol for phthisis. After the method of Jamieson, he employs a ten per cent. solution in olive oil, of which about twenty drops are injected by introducing the curved nozzle of a syringe between the vocal cords. Three or four injections are made at each sitting, and repeated daily. Dr. Bramwell believes the method is of advantage in certain cases, but how wide its range of usefulness may be, he has not decided.—*Studies in Clinical Medicine*.

Hydrastis Canadensis in Uterine Hemorrhage.—Where hemorrhage complicates fibroid uterine tumors hydrastis seems to exercise a favorable effect. The fluid extract may be given in the dose of sixty to eighty drops a day in doses of twenty drops each. The tincture of the strength of twenty per cent. may be used, or a decoction of the strength of sixty per cent. A useful formula is as follows:

Fluid extract of hydrastis	} āā 2½ drachms.
Malaga wine	
Syrup	

A teaspoonful in coffee every two hours.—*Lyon Médicale*, October 13, 1889.

Naphthalin in Enteric Fever.—DR. C. SEHRWALD has made some bacteriological experiments in Prof. Rossbach's laboratory, from which he draws the following conclusions: 1. Naphthalin at the temperature of the room retards but slightly the development of the bacilli of putrefaction, of feces and of typhoid. 2. Naphthalin, finely powdered or in solution has its disinfecting power increased. 3. In a temperature of 98° the effect of naphthalin is much more powerful than at lower temperatures, which makes it highly probable that it is chiefly in its gaseous state that it destroys the germs. 4. Gaseous naphthalin has more effect on aerobic than on anaerobic bacilli, and more on germs cultivated in a solid medium than on those cultivated in liquid. 5. The conditions for the full effect of naphthalin are much more favorable in the intestines than in the test-glass. 6. Naphthalin added to feces decreases their germs by about one-half, but, administered internally, it first decreases them one-third or even one-quarter; after this, however, the number rises again almost to its original figure. 7. Against the bacilli of typhoid stools naphthalin is still more effective, and decreases the number of germs even to one-tenth. 8. The administration of

naphthalin should be commenced at the very beginning of typhoid fever. 9. As calomel affects some of the fecal bacilli, while others are more readily destroyed by naphthalin, it is best to give, whenever possible, both drugs.—*Lancet*, September 28, 1889.

Prevention of Pitting after Variola.—In the *Revue Médico-Pharmaceutique* for September 30, 1889, SCHWIMMER gives his treatment for the prevention of the pitting of smallpox.

The method consists in a mixture of carbolic acid and thymol applied to the skin in the parts most exposed. The formula consists in the following:

Carbolic acid	60 to 75 grains.
Olive oil	1½ ounces.
Powdered prepared chalk	2½ "

If an emollient salve is desired the following may be used:

Carbolated oil	1 drachm.
Olive oil	1 ounce.
Pure starch	1 "
Thymol	1 drachm.
Linseed oil	1 ounce.
Powdered prepared chalk	2½ ounces.

Schwimmer asserts that he has tried this application in no less than six hundred cases of smallpox with good results, as it prevents deep suppuration, acts as a protective, and hastens the development of the lesions.

Ointment for Acne.—

Naphthol	2½ drachms.
Precipitated sulphur	1½ ounces.
Black soap }	āā 5 drachms.
Vaseline }	

This is to be applied to the skin every half hour or hour, and on the following day desquamation begins and lasts for eight days.

If the inflammation is very severe a local application of oil is to be made. Lewin cauterizes the pustules with nitrate of silver.—*L'Union Médicale*, October 12, 1889.

Solution for Chronic Coryza.—*L'Union Médicale* for October 17, 1889, gives the following formula of Morell Mackenzie for chronic coryza:

Bicarbonate of soda)	
Biborate of soda)	āā ¼ grain.
Chlorate of soda)	
White sugar	15 grains.

Dissolve in warm water. The solution is to be heated to 98.5° F., placed in the palm of the hand and drawn up into the nostrils in such a manner that it traverses the nasal cavities back to the pharynx. Better still, the solution may be injected into the nose by means of a syringe.

Antipyrin in Whooping-cough.—DUBOUSQUET-LABORDERIE (*L'Union Médicale* for October 10, 1889) recommends the following for whooping-cough:

Antipyrin	5 to 15 grains.
Syrup	6 drachms.
Vichy water	3 ounces.

A dessertspoonful of this may be given after meals to infants of one or two years. Dubousquet-Laborderie prescribes as much as fifteen grains of antipyrin to very young children without unpleasant results, and even gradually augments the dose. Sometimes as much as from fifteen to sixty grains are given to well-grown children and adults. After the ingestion of the drug a little soup or milk may be taken.

Collyria to Prevent Hernia of the Iris.—

Eserine	¼ grain.
Distilled water	2½ drachms.

This collyria is useful in staphyloma of infants, and is to be used whenever there is danger of perforation of the cornea. After paracentesis of the eyeball for glaucoma it is also useful.—*L'Union Médicale*, Oct. 1, 1889.

Carbolic Acid in Furuncles.—The treatment of boils by the parenchymatous injection of carbolic acid solution is strongly advocated by DR. LEU, who has used the method on a large number of cases and with most excellent results. He plunges the hypodermatic needle obliquely into the centre of the swelling, and injects from one-half to one syringe of a two or three per cent. solution, the size of the boil governing the amount used. Four injections are, according to Dr. Leu, usually sufficient rapidly to bring about resolution.—*Prager medicinische Wochenschrift*, October 16, 1889.

Empyema in Children.—In a paper read before the American Pediatric Society DR. FRANCIS HUBER advocated early operation in cases of empyema in children. Immediately before operating the exploring syringe should be inserted as a crucial test to establish the presence of pus, at the point where the incision is to be made. Pus being detected, the soft structures should be divided, layer by layer, to the extent of one and a half to two and a half inches, the index finger feeling the various tissues as they are divided. The pleura having been opened and the pus allowed to escape more or less slowly, according to the condition of the patient, the pulse being carefully watched, the largest size drainage-tube is inserted and the cavity irrigated with hot water or (1-10,000) bichloride solution. An antiseptic dressing is now applied, and changed when saturated or the temperature becomes elevated. In performing irrigation the greatest caution should be observed that a gentle stream only is employed; that the fluid be at a proper temperature, and its free escape not interfered with. It has been his practice to employ a siphon irrigator, improvised from Whitall, Tatum & Co.'s siphon nasal douche, the nozzle being replaced by a piece of glass tubing, and the vessel holding the antiseptic solution being held about one and a half to two feet above the level of the wound. The drainage-tube is secured by employing a piece of rubber bandage one and a half inches square, with a central perforation, through which the tube split longitudinally for about an inch is passed. The divided ends are then turned down and fastened to the square of rubber (acting as a shield) with small safety-pins or wire sutures, or the split portion of the tube is turned down and transfixed with a large safety-pin, no shield being used.

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SATURDAY, NOVEMBER 16, 1889.

THE TREATMENT OF CHRONIC GONORRHOEA.

THERE is probably no subject in medicine upon which more time and thought have been spent than that of the management of chronic urethritis. With the discovery of Neisser's gonococcus as the cause of gonorrhoea, and the introduction of antiseptics into its therapeutics, there seemed to the enthusiast little doubt that at last a way had been found to shorten the duration and to limit the effects of acute urethritis, and that chronic urethritis would be less often the sequel than in pre-antiseptic days. Unfortunately this hope has not been by any means entirely realized. There are so many conditions which tend to perpetuate a urethritis, or to re-establish it when recovery is close at hand, that it is dangerous to put our faith in any one line of treatment. In dealing with chronic urethritis the treatment that is most apt to lead to success is that which is based upon a careful, thorough examination of the diseased urethra in question. Whatever may be the pathological condition present, whether stricture, granular state of the mucous membrane, or what not, the plan of treatment adopted must be directed intelligently to it.

In the *Münchener medicinische Wochenschrift* for October 1st, is an interesting paper by DR. WILHELM FLEINER, of Heidelberg, entitled "Contributions to the Therapeutics of Gonorrhoea." After a concise

review of the pathology of acute urethritis—Neisser's coccus of course occupying the prominent position—Fleiner makes particular mention of the formation of granulation tissue in the deeper layers of the mucosa, and the subsequent atrophy leading to its alteration into cicatricial tissue, and the narrowing of the urethral calibre thereby. Giving to Unna proper credit for having suggested the combination of medication with the mechanical treatment of chronic urethritis, the writer gives his entire support to the method. Unna used sounds covered with a mixture composed of nitrate of silver (1 per cent.), balsam of Peru, yellow wax, and cacao butter. In order, of course, that the medicinal agent introduced into the urethra may be effective, its vehicle must be such as to permit its intimate contact with the surface of the mucous membrane. Casper and others have claimed that lanolin fulfils this requirement, and substitute it for cacao butter and wax in Unna's formula. They claim that lanolin will take up 50 per cent. of its weight of water, and, consequently, that when the ointment comes in contact with the moist surface of the urethra, a thorough application of the active ingredient is insured. Fleiner shows that the small amount of ointment rubbed upon the sound could take up but a very insignificant quantity of moisture from the mucous membrane, so disposing of the claim made for the superiority of lanolin on that ground. A further objection that he makes to it is that the lanolin mixture does not melt readily in the urethra, and that but an infinitesimal amount of the remedy is left in contact with the diseased area.

Fleiner uses cacao butter with a small proportion of yellow wax as the basis of his mixture. Nitrate of silver is the stimulating agent he prefers. His formula is as follows:

R.—Argenti nit. 1 part.
Cerae flav. 2 parts.
Ol. theobrom. 17 " —M.

He employs ordinary steel sounds, sizes 18 to 28. The appropriate instrument being selected, it is heated and the ointment rubbed upon its surface, or such parts of its surface as may be desired. The preparations for this method of treatment are, therefore, of the simplest possible kind. The object aimed at is the combined effect of dilatation of the urethra with stimulation of unhealthy parts of its mucous membrane. Fleiner's results are quite flattering. In forty-one cases twenty-eight were cured and eleven improved. As to the number of sittings required,

from four to six are generally necessary; on two occasions recovery followed upon one application, and in eight cases there were over ten sittings.

Nitrate of silver has always occupied an acknowledged high position in the list of remedies for chronic urethritis, but experience shows that there are many urethræ to which it is wholly unsuited, and for these Fleiner recommends that either tannin, thallin, or bismuth, be substituted in the application used.

The value of antiseptic or astringent solutions employed for irrigating the urethra, in addition to the above described measures, is not lost sight of by the writer. His claim for the results of treatment by combined dilatation and medication is most modest, and the statement is candidly made that there are some cases which will resist every kind of treatment.

It cannot be said in favor of Dr. Fleiner's method that it is in any way novel, and, in fairness to him, it must be stated that he makes no such claim. The practice of dilatation of the urethra up to its full capacity is a familiar method of treating chronic urethritis, and, as for local medication, the means for carrying it out and the agents used by different authorities are numerous. It is interesting, however, to meet with an account of such good results derived from the judicious modifications of methods already well known, although frequently far from satisfactory.

MISERABLE DICTU.

At the present time, when the power of evil legislation seems to have the upper hand, and the endeavors of the regular profession to obtain a State Medical Examining Board, have been thwarted in the State of Pennsylvania by certain opponents of professional high standing, the following abstract from the *Brooklyn Medical Journal* may carry to the public a sufficient idea of the frightful dangers which they allow to exist under the present law. It is very easy for a man, as brutally ignorant as some of these men seem to have been, to mistake the symptoms resulting from one of their poisonous doses for evidences of disease, and in this way to fail absolutely to attempt to remedy the evil which their criminal negligence has brought about.

The Virginia Board of Medical Examiners received the following answers to questions put to graduates of medical colleges, who, under the Virginia law, applied for licences to practise medicine in that State:

Describe the larynx. *Ans.* The larynx is composed of cartilage. The œsophagus passes through the larynx.

What is the function of the liver? *Ans.* Do not know.

Give tests for arsenic. *Ans.* Sulphuretted hydrogen is one. Don't know rest.

Give test for mercury. *Ans.* Do not remember.

Give dose of tartar emetic. *Ans.* Ten grains.

Give dose of sulphate of atropia. *Ans.* Hypodermatically ten grains; by mouth sixty grains.

Give dose of corrosive sublimate. *Ans.* One grain.

How would you treat placenta prævia? *Ans.* I don't know what it is.

Give dose of powdered cantharides. *Ans.* Forty grains.

What is the source of iodine? *Ans.* It is dug out of the earth in blocks like iron.

Describe dengue or break-bone fever. *Ans.* By four applicants: A fever that comes on soon after the bones are broken. By one applicant: The patient should be cautioned against moving, for fear the bones should break.

Describe the peritoneum. *Ans.* It is a serous membrane lining the belly and extending into the chest, covering the heart and lungs.

Anatomical ignorance is bad enough, but the ignorance of doses of powerful drugs is terrible in its results.

It is hardly necessary for us to point out that the doses of atropine here given are sufficient in the one case to poison over twenty men, and in the other instance to kill, perhaps, over one hundred adults. The proper punishment for the man who would order forty grains of cantharides would be the administration of the drug in consecutive divided doses, lest the one should kill him too soon.

For every candidate applying for the right to practise medicine in the State of Virginia, where the people are intelligent enough to protect themselves, fifty similar and worse dealers in human lives enter this and other States, where no examination frightens them away; and it is worthy of remark that the candidates in Virginia were not only ignorant of medicine, but were ignorant enough of their own mental state to dare the terrors of an examination. The provision of a State Medical Examining Board is not a measure to be engineered through the legislature by the medical profession. It possesses far less importance to us than to the laity, for

one doctor can generally grasp the calibre of another and protect himself. It is the people who suffer in silence, instead of protesting against such fearful homicidal practitioners. To-day the writer of this editorial read of a case where ergot was given in the early part of the second stage of labor, and yesterday he heard of a woman killed by a great, burly brute who was ignorant of the most simple form of obstetrical procedure. Yet with the perversity of human nature, the apothecary who dispenses poisons must be examined, and the man who orders the poison prescription goes unendorsed. Two means of remedying this crying evil are possible. The first, is to prevent the entrance of the money-grasping ignoramus into the sacred guardianship of life, home, and family. The other, is for the laity to inform themselves of the standing of surrounding medical schools, and refuse to recognize the degree of an institution turning out unqualified men or of one of which they know nothing. When the people become educated well enough to know when their wives, children, and those dearest to them are killed because of the employment of a miserable charlatan, then, and not till then, apparently, will an effort be made to prevent this "yearly sacrifice."

REVIEWS.

STUDENT'S AID SERIES. III. MEDICINE. By C. E. ARMAND SEMPLE, M.D. New York: G. P. Putnam's Sons, 1889.

THIS handbook is intended as an aid to students preparing for examination in medicine. The various diseases of special organs are briefly described with their pathology, symptomatology, and treatment.

The chief object of such manuals is to enable the student to classify and arrange his knowledge. In order the better to accomplish this all but the essential facts should be eliminated, leaving to more extensive works the discussion of abstruse questions. Absolute accuracy is, of course, one of the most essential requirements.

The author has in many instances departed from the region of known facts, without, however, following to their conclusions the theories advanced. The purpose of the book would have been much better attained had the known facts or the more plausible theories alone been given.

As to accuracy, the book is far from satisfactory. Had the author occasionally made a statement that either could not be verified, or would not have seriously misled those for whose aid the book is intended, the brevity required in a work of this character might have excused it. When such misleading statements, as are to be found throughout this book, are made, it is impossible to regard it as one that could be safely recommended to the student.

From numerous equally erroneous statements, the following examples are selected:

It is stated by the author that pleurisy is usually single, but that the disease may *extend* and constitute double pleurisy. The pulse of aortic regurgitation is characterized as *microtous*. Instead of accepting the undue prolongation of the diastole and consequently longer period for regurgitation produced by digitalis as a reason for its failure to benefit cases of aortic insufficiency, the author states that in this affection the drug may do harm by driving the ventricle into a state of contraction from which it may never become relaxed. Medullary *sarcoma* is given as a variety of carcinoma of the liver. Tincture of iodine is said to give a *brown* staining to tissues that have undergone amyloid change. Albuminous urine is said to be absent in pyelitis. "*Sarcinae* is a name applied to a variety of vomiting." Idiopathic enteritis is classed as a rare disease. In describing colica pictonum, the hands are said to be generally first affected, giving from the context the impression that wrist-drop was the first symptom of lead colic. The following sentence is peculiar, "The organ (spleen) should be percussed whilst the patient is lying or standing on his right side." In regard to the treatment of laryngismus stridulus, the first statement made is, that the gums must be lanced and a warm bath used, leading the student to suppose that he should lance the gums in all cases, whether dentition were in progress or not, there being nothing in the text that could remove such an impression. Among the remote causes of apoplexy, the author gives first place to "a peculiar configuration of the body." In describing *delirium tremens*, there are given as causes: Excessive use of opium, mental exhaustion, intense study, prolonged anxiety, all causes of debility, physical and mental shock.

Some of these examples appear to express what could not have been the opinion held by the author. Nevertheless the statements are made, and the student would be unable to put any different construction upon the text.

Taken altogether, the book cannot be considered one that would be either a safe guide or a satisfactory aid to the candidate for examination.

SOCIETY PROCEEDINGS.

TRI-STATE MEDICAL ASSOCIATION OF TENNESSEE, GEORGIA, AND ALABAMA.

IN pursuance to a call made during the past summer, a number of physicians from Georgia, Alabama, and Tennessee, met in Chattanooga, Tennessee, October 15 and 16, 1889, and organized themselves into a Tri-State Medical Association, to meet once a year. Having adopted a Constitution and By-laws, the association was duly organized with the following officers: *President*, J. B. Cowan, M.D., Tullahoma, Tennessee. *Vice-Presidents*, Andrew Boyd, M.D., Scottsboro, Alabama; James B. Edge, M.D., Decatur, Georgia; S. B. Barber, M.D., Tracy, Tennessee. *Secretary*, Frank Trester Smith, M.D., Chattanooga. *Treasurer*, S. B. Wert, M.D., Chattanooga.

DR. W. L. GAHOGAN read a paper on

THE PHYSIOLOGY OF THE HEART AND ITS VALVES, containing an accurate description of the minute anat-

omy, the innervation, action, and sounds of the heart, normal and pathological.

DR. G. W. DRAKE, in discussion, said the question, What makes the heart beat? has not yet been satisfactorily answered, and called attention to the importance of recognizing the difference in the nervous mechanism of the lower and higher orders of animals.

DR. JAMES E. REEVES, of Chattanooga, read a paper on

THE IMPORTANCE OF THE MICROSCOPE IN THE
PRACTICE OF MEDICINE,

which was discussed by Drs. W. C. Tacones, G. A. Baxter, and J. B. Cowan, who emphasized the importance of microscopical investigations at the bedside. The paper was carefully written and well received.

DR. J. E. PURDON, of Cullman, Georgia, reported

A CASE OF FRACTURE OF THE SKULL IN AN OLD MAN,
WITH RECOVERY.

The man was sixty-five years old. The interest in the case laid in the fact of recovery at such an age and from such an extensive fracture. The opening of the removed bone was three inches or more square, and located over the third frontal convolution. There was complete loss of memory of names followed by partial recovery.

The paper was freely discussed by various members. In this line, Dr. G. A. Baxter mentioned a case of anomalous distribution of the anterior branch of the middle meningeal artery, which was wounded while trephining for compression caused by blood-clot. The hemorrhage was controlled by pressure, the plug of bone being inserted. In a few days, union of bone took place, and complete recovery resulted.

Meeting then adjourned until 8 P. M.

At the night session, letters were read from Drs. Robert Battey, of Rome, Georgia, and F. W. McRae, of Atlanta, Georgia, expressing their regret at not being present.

DR. ANDREW BOYD, of Scottsboro, Alabama, presented a paper on

CROUPOUS PNEUMONIA,

in which he briefly reviewed and discussed the etiology, holding that the disease is due to a specific germ, and citing cases to prove his position. He thinks the diagnosis can only be made from physical signs, and that the rusty sputum and herpes labialis are pathognomonic. The disease runs a definite course in from seven to fourteen days. He mentioned four varieties of treatment: depletory, sedative, stimulating, and mercurial, and reasoning from analogy he concluded that the best plan is to keep down the fever and stimulate the heart.

This paper was discussed by Drs. Reeves, P. D. Sims, E. T. Camp, J. E. Purdon, and C. W. Cooper. Dr. Drake called attention to the importance of keeping in mind fibroid phthisis as a sequela of croupous pneumonia.

DR. MAX THORNER, of Cincinnati, Ohio, presented a paper on

IMAGINARY BODIES IN THE THROAT.

These were divided into three classes: 1. Cases where some object had been removed from the throat, but the sensation of the body remained. 2. Cases where the sensation was due to some pathological lesion of the throat. 3. Where neither of the above existed, but where

the sensation was due to a reflex, or produced by some remote ailment, as *e. g.*, indigestion, or a pure neurosis. The treatment varies according to the state; some can be persuaded that there is no foreign body present; in others innocent deception is necessary. Pathological conditions, as enlarged tonsils or uvula, varicose veins on back of tongue, hypertrophied papillae, or lymph nodules should be removed. The paper was discussed by Drs. W. C. Steele, N. C. Cooper, and Frank Trester Smith.

SECOND DAY.

The President appointed the following chairmen: On *State Medicine*, P. D. Sims, Chattanooga; *Meteorology*, E. T. Camp, Gadsden, Alabama; *Psychical Research*, J. E. Purdon, Cullman, Alabama; *Pathological and Practical Microscopy*, J. E. Reeves, Chattanooga; *Otology*, R. D. Boyd, Chattanooga; *Ophthalmology*, N. C. Steele, Chattanooga; *Obstetrics*, W. T. Blackford, Graysville, Georgia; *Gynecology*, R. J. Trippe, Chattanooga; *Surgery*, G. A. Baxter, Chattanooga; *Practice*, G. W. Drake, Chattanooga; *Laryngology*, Max Thorner, Cincinnati; *Experimental Physiology*, W. L. Gahogan, Chattanooga; *Materia Medica and New Remedies*, Junius F. Lynch, Chattanooga.

DR. J. A. LONG, of Long's Mills, Tennessee, read a paper on

TYPHOID FEVER.

He reported 505 cases with a death-rate of 2 per cent. The main treatment was turpentine in drop doses every hour; whether it acts as a stimulant, retards ulceration, or acts as a disinfectant he did not pretend to say.

DR. J. E. REEVES criticised the paper, questioning the statement that the death-rate did not exceed 2 per cent., and thought that all Dr. Long's cases were not genuine typhoid fever.

DR. DRAKE remarked that the paper contained the most complete pen-picture of the disease which had ever been presented to his mind; aside from some confusion in regard to infection and etiology, it merited high commendation. Much interest attaches to the paper as being the result of the observation of over 500 cases in a practice confined to one locality. Dr. Long gave his observations on his own cases without reference to text-books or experience of others. Turpentine, quinine, alcohol, milk, and home-made beef tea are the medicines and foods Dr. Drake has used in his practice.

AFTERNOON SESSION, SECOND DAY.

DR. W. C. TOWNES read a paper on

HYPNOTISM AND SUGGESTIBILITY.

DR. J. E. PURDON, of Cullman, Alabama, presented a paper on

THE SPHYGMOGRAPH AS A NEW AGENT IN PSYCHICAL
RESEARCH.

Dr. Purdon claimed to have discovered the fact that psychical influence of one nervous system upon another at a distance, unconnected by any of the ordinary physiological bonds, could be demonstrated by the aid of the sphygmograph; that he had identified, in many instances, forced relationship of the pulse tracings from the fact that certain neurotic subjects had departed from their usual trace-forms to conform to those of individuals with

a more dominant nervous system. Dr. Purdon further argued that this was a first step toward the proof of psychical connection between the higher centres of different brains, which the progress of modern psychology obliges us to acknowledge. In the face of the now well-established fact of psychical communication, mind-reading, sympathetic sensibility, etc., Dr. Purdon argued against the fundamental principles of materialism by falling back upon the possibilities of the infra-conscious intelligence, and by regarding mind and matter as but different aspects of the one underlying reality.

DR. DRAKE said we had hitherto been taught that nerve impulses are confined to the individual in whose organism are contained the cerebro-spinal and ganglionic nervous systems. In Dr. Purdon's paper the startling thought was presented that nerve impulses (or nerve fluid) may escape from the body of one individual, and like electricity, passing through the intervening media, penetrate the body of another individual. When impulses from the cardiac centres of one person may pass to those of another, or to the nerves leading from them, and so control the pulse as to cause the sphygmographic tracings of the individuals to be identical, when impulses, as instanced in the cases cited, passed through prison walls and affected individuals in separate cells, this fluid must be more subtle than electricity.

As to hypnotism and suggestibility, presented by Dr. Townes, the brain centres are kept awake by impulses which flow in through the five senses, and also by thoughts and ideas from the mind. Impulses may be conducted by nerves to any or all of the brain centres, or subconscious impulses may originate in these centres. To become expert in the practice of hypnotism, it is necessary to resort to the methods of temporarily suspending or retarding the action of the brain centres. If one learns to control a normal action in the subject, by the same means he may be enabled to modify an abnormal action which is producing some functional disturbance. The method of suggestion is a species of faith-cure, and depends, in a great measure, upon the credence of the patient in the promises of the physician. Suggestibility, as Dr. Drake understood it, is a susceptibility to certain psychical influences, and may be increased by the hypnotic state.

DR. COOPER HOLTZCLAU presented a paper entitled,

REPORT OF TWO CASES OF LAPAROTOMY, WITH A SPECIMEN.

CASE I.—Female, married; aged twenty. History of pelvic cellulitis for two or three years previously, and ascites, which was tapped several times. Uterus adherent; tumor size of hen's egg, situated to the right of Douglas's pouch and rectum; pain on touch and defecation. Diagnosis, ovarian cyst. At the operation the ovaries and tubes were found adherent. The patient recovered, and is in good health.

CASE II.—Female, unmarried. In January, 1888, patient noticed a small tumor in right iliac region, which grew so large that she appeared as though at the full term of pregnancy. She also suffered from dyspnoea and irregular menstruation. Xiphoid cartilage dislocated and painful. Heart sounds rapid and weak. Diagnosis, parovarian cyst. At the operation on October 1, 1889, a large sac of fluid and colloid matter, containing

two gallons, was removed. The pedicle was short. Patient was dismissed on the fifteenth day well.

DR. JUNIUS F. LYNCH reported the following case of laparotomy: Patient, aged thirty-five, an invalid for several years. Diagnosis, pyosalpinx. The sac ruptured in trying to remove it, and the contents emptied into the abdominal cavity. Some hours after the operation tympany became marked and the patient was given Epsom salts and enemata of turpentine and assafetida, but the gas continued to accumulate. Dr. Lynch advised further operative procedure, but fortunately at this time, the fifth day, there was a copious evacuation of the bowels, and no further distention. Operation performed under strict antiseptic precautions, and patient recovered without further bad symptoms.

DR. TRIPPE reported other cases of laparotomy for cystic tumors and stab wounds.

The night session was chiefly occupied by a general discussion on the subject of hypnotism.

The meeting was highly successful in point of numbers and the amount of work done. The number of papers was not large, but the discussions were full and free.

The Association meets in Chattanooga, Tennessee, October, 1890.

GYNECOLOGICAL SOCIETY OF CHICAGO.

Stated Meeting, June 21, 1889.

THE PRESIDENT, CHARLES T. PARKES, M.D.,
IN THE CHAIR.

DR. W. W. JAGGARD presented a photograph of a

CASE OF FETAL APLASIA,

and read an account furnished by Dr. Mansfield, in whose practice the case occurred.

The confinement in which the monster was delivered was one of twin pregnancy at about the seventh month. The mother was a multipara.

On dissection, all the tissues were found very cedematous. The feet were clubbed, and had but two toes each, great and second. The weight was ten pounds. The external genitals were female, normal. No anus was present. The right side of the abdomen and right side of the thorax were occupied by a vesicular tumor, which on dissection proved to be of spinal origin, the pedicle arising from the seventh cervical and first thoracic vertebrae. The sac was continuous with the membrane of the cord, and filled with cerebro-spinal fluid. The right arm was united to the side of the abdomen. The radius and ulna were the only bones present. The left arm was adherent to the thorax as far as the elbow. Hand clubbed, with rudimentary thumb and two rudimentary fingers. Both superior maxillae and palate were cleft. The trachea, thymus, thyroid, lungs, oesophagus, stomach, spleen, pancreas, and liver were all absent. The umbilical vein entered the right auricle directly. The entire length of intestine was twelve inches, and at its blind end were two small, kidney-shaped, glandular organs that weighed five grains each. The kidneys were very large, one and three-quarters inches by one and one-quarter inches by three-quarters of an inch. Ureters as large as goose quills, and emptied with the intestine into a cloaca that occupied the normal position of the vagina. No trace of uterus or ovaries. Mesentery and peritoneum studded

with little bodies like miliary tubercles. On opening the skull, the membranes were found firmly united, and to them was attached a thin layer of brain substance. Cavity filled with cerebro-spinal fluid. Basal ganglia represented by about thirty grains of brain matter. No olfactory or optic nerves. Spinal cord in cervical region about one-quarter inch in diameter, and pinkish in color.

Dr. Jaggard said that the specimen, while rare, was by no means unique. It possessed many of the characters common to the acardiaci—it was the product of twin or multiple pregnancy, the placenta is single, the twin is perfectly formed and is of the same sex. On account of the presence of the rudimentary heart, however, this monster could not be referred to any one of the three types that are commonly described—amorphous, acormous, and acephalous, but appeared to represent a transition-form between the common acardiac acephali and the acranii.

THE PRESIDENT then reported the following cases of

HYSTERECTOMY, AND AN OPERATION FOR TUBAL PREGNANCY.

The first was a case of vaginal hysterectomy done some six weeks previously for persistent hemorrhage. All the usual methods had been resorted to for the purpose of controlling the hemorrhages, such as curetting the uterus, various applications, repair of the cervix, etc., without producing any effect on the bleeding or on the size of the uterus, which was considerably larger than normal. Finally, he advised her, since she had passed the forty-fifth year of her life, and was really losing her life with the hemorrhages, to submit to an operation for the removal of the uterus. A vaginal hysterectomy was performed, attended with many difficulties owing to the size of the uterus, which required much force to be delivered through the natural passage. After it was removed, the entire upper portion of the body of the uterus was found to be a mass of degenerated tissue. Microscopical examination showed it to be epitheliomatous.

The second was a case of abdominal hysterectomy for a very large tumor, which weighed about fourteen pounds immediately after removal. The case was of great interest, owing to the fact that examination of the tumor by himself and others left them doubtful whether it contained fluid or not, or whether it was a single cyst or a mass of cysts. Section through the abdominal wall showed a uterine tumor which had broken through the capsule at the upper end. It was particularly interesting, for the reason that for the first time in his experience an opening was torn into the small intestine, but none of the contents of the intestine escaped into the peritoneal cavity. The patient was in good condition till the fifth day, when she exhibited symptoms of obstruction of the bowel, and died.

A post-mortem examination was held, the incision being made in the line of the original incision. When the abdomen was opened, the distended intestines escaped. The tear was completely closed, and this portion of the intestine held gas as perfectly as the others; every suture was covered over, except at the knotted ends.

This was his fourth case of abdominal hysterectomy

treated by the extra-peritoneal method, all of which had died.

The third case was one of tubal pregnancy, at about the third month, upon which he performed abdominal section. There had been quite a hemorrhage into the broad ligament. The tumor and the opening into the Fallopian tube were found without difficulty. He did not, however, find the fetus. The tumor consisted of the remnants of the placenta and amniotic sac. All this was removed, the opening of the cavity closed, and the wound packed with iodoform gauze. The woman recovered.

The fourth case was also one of abdominal hysterectomy, or, rather, the sequel to that operation performed three years ago. Since the previous operation the patient had suffered from the fact that the lower end of the wound had not closed. Six months after the operation quite a quantity of pus was discharged, and six months ago she had a serious accumulation of pus, with septic fever. From this abscess one of the ligatures came out, two and a half years after the operation. The tumor was a large one, requiring a long incision, and the patient had quite a good-sized ventral hernia.

The recent operation was done for an opening through the remnant of the cervix, from which, by inserting a probe and turning it in the cavity of the cervix, he brought away a small amount of fecal matter. Evidently there had been adhesions between some portion of the bowel and the stump of the uterus, and sloughing and inflammation had gone on between the cavity of the bowel and the cavity of the cervix. The canal was short, so a conical incision was made through the remnant of the cervix, extending as high as possible, and the two surfaces sewed together to close the pocket and the cervical opening.

DR. E. C. DUDLEY reported

TWO CASES OF VAGINAL HYSTERECTOMY

similar to the cases reported by Dr. Parkes. The first operation was done January 9, 1889. The patient was fifty-eight years of age. The subjective symptoms were frequent and very profuse flowing, with intervals of free muco-purulent leucorrhœa, during the previous sixteen months.

Examinations of repeated scrapings from the endometrium failed to show anything except adenoma, but it was decided to remove the uterus on suspicion. Just before the removal, however, Professor Frank Johnson, after having examined a large number of slides, discovered unmistakable evidence of cancer. After the removal of the uterus, this cancer was microscopically proved to extend almost through the fundus uteri.

Although the patient had suffered for years from a ruptured and relaxed perineum, the perineum was divided to get more light and space for isolation of the broad ligaments. Immediate closure of the perineum thus divided resulted in perfect union. Four weeks later the patient had trouble in walking, from sagging of the pelvic floor, from cystocele, and from rectocele, and requested perineorrhaphy.

Upon examination, a small, soft, friable protuberance in the perineal scar caused Dr. Dudley to fear a return of the disease at that point. Consequently, after thorough disinfection of the vagina and external genitals, the growth was excised with a wide margin of healthy

tissue; the operation was completed as a perineorrhaphy. Upon examination of this little growth Dr. Johnson declared it to be a carcinoma.

The question arises, whether this was the result of metastasis, a transplantation, or an independent growth. It could hardly be metastatic, because the vessels do not run in that direction. If it were an independent growth, it is probable that the conditions which produced it would have been active in other parts before this time. More probably it was a transplantation during the operation. This speaks strongly for scrupulous care in the cleansing of all wounds after the removal of cancer.

The second hysterectomy was on March 22, 1889. Before the operation, the microscopic examination by Dr. Johnson, and the subjective symptoms, were essentially the same as in the previous case, except that the microscopic evidences from repeated scrapings showed nothing more than adenoma. The uterus was removed on suspicion.

The following is Dr. Johnson's report of the post-mortem examination:

"Cavity of body partly filled by a mass of outgrowing mucous membrane, consisting of long, slender villi.

"*Microscopical Examination.*—The villi covered with columnar epithelium.

"At the base of the new growth are found a few nests of cells not conforming to the gland type, but are irregularly shaped masses of polygonal epithelial cells packed closely together.

"In one specimen, a mass of lymph spaces in the uterine tissue at some distance from the bases of the villi, is seen packed with epithelial cells similar to those last mentioned.

"*Diagnosis.*—Villous adenoma, beginning carcinoma."

The patient recovered, and at the present time has no return of the disease.

Permanent hæmostasis and closure of the peritoneal wounds were secured by means of lock forceps.

OVARIOTOMY.

DR. PARKES then read the notes of a post-mortem held on a patient presented to the Society in March, 1884. The case was one of ovariectomy complicated by miliary tuberculosis. From the time of the operation to her death there was a constant discharge from the old wound.

"The abdomen was flat, and on section the viscera appeared normal.

"Liver normal in size; slightly fatty (pale and mottled). Spleen, fully three times its normal size; very firm; amyloid. Right kidney nearly twice the normal size; capsule non-adherent; cortex twice the normal thickness; surface beneath the capsule is slightly paler than normal, and mottled. Microscopical examination was not made. Left kidney is represented by a large cyst, occupying the greater portion of the left half of the abdomen. Contents, cheesy, straw-colored fluid. The cyst wall formed by the capsule of kidney somewhat thickened, and in a few places thin remnants of kidney parenchyma are found upon the inner surface. The cyst is sacculated: the pouches seemingly correspond to the original calices of the pelvis. The left ureter is embedded in a mass of cicatricial tissue (site of old operation for suppurating dermoid cyst of the left ovary).

"*The Abscess.*—The external opening in the abdominal wall is in the median line about an inch below the umbilicus. The finger passes downward in the median line behind the pubic bones; from there downward and backward about two inches, also to the right, along the brim of the pelvis. Near the external opening is a communication with an inner sac, situated within the pelvis and projecting upward into the right iliac fossa. At the point of communication between the outer and inner sacs, the colon is adherent and opens into the abscess in such a way that the finger may be passed from the outer sac into either the colon or the inner sac. (The remainder of the head of the colon, the ilio-cæcal junction, and the vermiform appendix are normal.) The inner sac has thick walls. It is covered in front by peritoneum. The cavity is somewhat larger than a goose egg; the inner surface is irregular, in ridges and elevations, and is gangrenous. Beside the sac, no trace of ovary can be found on the right side. Left ovary absent; uterus small, atrophic; bladder contracted; alimentary canal, with exception of caput coli, normal."

Dr. Parkes referred to Kaltenbach's seven cases of vaginal hysterectomy for what he calls corpus carcinoma, or malignant adenoma, originating in the mucous membrane of the body of the uterus. Kaltenbach removed the uterus because all other methods of controlling hemorrhage had failed, and in all of these cases he found the same degeneration, commencing about the Fallopian tubes and spreading up over the fundus to join in the median line.

DR. DUDLEY said that the question sometimes is, whether the uterus, or the ovaries and tubes, should be removed in a case of intractable uterine hemorrhage. If scrapings from the uterus prove to be adenoma under the microscope, and yet return promptly after removal, then he would fear carcinoma, present or prospective, and should be disposed to remove the uterus. If, on the other hand, it be not possible to get much out of the uterus by repeated curettings, the probability is against carcinoma as a cause of the hemorrhage, and the removal of the appendages would be preferable to removal of the uterus. The malignant tendency of adenoma—that is, its disposition to eventuate in cancer—is abundantly shown by the observations of Breisky, Schroeder, Winckel, and others.

DR. PARKES said this latter fact was important to remember in all cases of enlargement of the body of the uterus.

DR. DUDLEY believed that the enlargement of the uterus might be from myoma; in that case, the hemorrhage would be relieved by removal of the appendages. But if scrapings from the interior of the uterus show adenoma, be the uterus large or small, the patient may be losing valuable time until the uterus has been removed.

DR. PARKES thought that pathologists required a full history of a case before making a diagnosis.

DR. HOLMES said that the recognition of typical carcinoma was easy enough; but if a surgeon removed a portion of tissue half the size of a pea, and presented it to a pathologist for examination, it was presumptuous to suppose that the pathologist could examine that minute fragment and decide by it whether the uterus contained carcinoma or not. A proper diagnosis depends as much upon the operator who removes the tissue as upon the pathologist.

DR. DUDLEY believed that the uterus need not be much increased in size to be carcinomatous. In the first of the two cases just reported, the uterus was not very much enlarged, but carcinoma was unmistakable.

DR. J. T. WATKINS presented an inaugural thesis, entitled

CONCENTRATED SOLUTION OF MAGNESIUM SULPHATE
AS AN ENEMA, WITH SOME POINTS RELATIVE TO THE
PHYSIOLOGY OF THE ABDOMINAL CIRCULATION.

After reviewing the literature, and reporting a number of cases in which the enemata had been used, he summarized its advantages as follows:

1. Its action is local.
2. It seldom fails, and produces copious stools.
3. The time of action is short.
4. The bulk is small, causing but very little, if any, discomfort to the patient.
5. It is as unirritating as a simple enema.

Its certainty of action has become so well recognized in the New York Woman's Hospital that it has been used in nearly all the operative cases, as the cathartic preparatory to operation, for the last six months.

It is best administered with the patient in Sims's position, the hips being elevated by a pillow; and when much tenderness exists, it should be given through a large rubber catheter passed well up into the bowel. The patient is to be instructed to allow the abdominal muscles to remain lax, and, if necessary, the nurse is to keep up pressure over the anus, to cause it to be retained for at least fifteen or twenty minutes. If the bowel should fail to expel the exuded liquid, a rectal tube should be inserted to allow its escape. Two ounces have been retained, without bad results; but Christison reports a case of death in a boy ten years old, where two ounces were taken by the mouth without being followed by purging. Where it is retained, the sphincter ani is likely to be strongly contracted, and great relief will follow forcible dilatation under an anæsthetic, which will also have a good effect upon the chronic constipation usually present.

The following is the formula he uses:

R.—Magnesii sulph.	2 oz.
Glycerine	1 "
Aquæ	q. s. ad 4 " —M.

The solution is made more readily, and its power of diffusion increased, by the addition of glycerine. He has used three and four ounces of the salt, but does not see that it has any advantages over the smaller amount.

DR. J. H. HOLLISTER presented a paper entitled

NOTES ON ACUTE INVERSION OF THE UTERUS,

in which he said that the uterus, whether gravid or unimpregnated, may become partially or completely inverted as an obvious result of enlargement or distention of the organ. This may result either from the development of a foetus or from the growth of a tumor in utero. In a uterus thus distended, he was convinced that inversion would not occur spontaneously—that is, from simple rhythmical contraction of its own muscular structure. It seemed more probable that force must be applied to the fundus to accomplish its inversion. This might occur independently of any manipulation by an attendant, by a simple gravitation of a pendulous tumor or by an ad-

herent placenta, which may be partially discharged into the vagina, and, being adherent, drag a distended fundus after it. A more obvious, and, doubtless, more frequent, cause for such displacement is that of undue traction upon the umbilical cord while, as yet, there has been but partial detachment of the placenta. This last might be associated with undue pressure upon the fundus at its superior portion, applied by the hand upon the abdominal walls.

The inversion commences by an infolding of the fundus more and more into the uterine cavity, the advancement of this involution to the cervix, then through the os into the vagina, and, when completed, the organ emerges through the vulva and hangs as a pendulous pyriform tumor.

The striking similarity which occurred in two cases which he had carefully examined, led to the conclusion that when the uterus is thus completely inverted the os is no longer discernible, but that in its place there is an inverted cervix, giving a band-like feeling and easily distended.

While the uterus remains in this state, there seem to be two important conditions present:

The first is the entire loss by the organ of the power of either rhythmical or tonic contraction. The function of sensation seems also arrested, for his patients were unconscious of pain from simple pressure or manipulation of the organ.

The second marked feature in each of his cases was this: after complete inversion, there was almost no hemorrhage from the uterine walls, and it was only after reduction had been nearly accomplished that hemorrhage became troublesome.

He believed it to be an exceedingly rare accident in labor.

The histories of the two cases under his personal observation were as follows:

CASE I.—Mrs. P., American, aged twenty-four years, well formed, spare in figure, in moderately good health, and of active habit; married one year. At her first confinement the patient was in labor ten hours, and gave birth to a healthy, well-formed babe weighing eight and one-half pounds. There was no unusual hemorrhage.

He was confident that he did not exert undue pressure upon the abdominal walls, nor did he detect partial involution. With some degree of traction upon the cord, still the placenta was not delivered. Holding the cord with moderate tension in his left hand, the vagina was explored with the right, and the placenta found partially protruding through the os. Gathering this more and more into his hand, and using considerable traction, it gradually descended, until suddenly it protruded in a large mass external to the vulva. In endeavoring to remove the placenta, it was found adherent to a tumor half as large as the infant's head, and pyriform in shape.

A portion of the placenta—apparently as large as the palm of the hand—adhered so firmly to the uterine wall that it required to be picked away, segment by segment, with some degree of force. During this process of separation there was almost no hemorrhage, showing that in this condition, by compression, the supply of blood to the uterus had been nearly cut off.

Dr. Shepherd, of Grand Rapids, was then called in, who drew the organ out as far as safety would permit, and by digital manipulation commenced the evolution of this

inverted organ. He was able to accomplish this, to a considerable extent, while the uterus was still external. Next, inserting the end of a round ebony rule an inch in diameter into the indented fundus, and still holding the cervix as securely in his left hand as possible, he gradually accomplished the reduction, and, as the fundus receded in the upward direction, carried it more rapidly upon the point of the instrument fully up to its normal situation. In a few moments the outline of the womb could be detected above the pubes; it again resumed moderately strong rhythmic contractions, and the patient made a good recovery without any untoward symptoms, and was afterward the mother of other children.

CASE II.—Mrs. G., American, aged twenty-five years; housewife, moderately spare in habit; married, and first confinement. Dr. Hollister was called by Dr. J. H. Bates, of Chicago, to see this case in consultation, in 1888.

The confinement had been one of moderate severity, but not at all complicated.

Upon lifting the placenta from the vulva, Dr. Bates discovered the projecting pyriform tumor of an inverted uterus.

Involution was effected, as in the preceding case, but the uterus had not recovered its power of contraction, and pretty severe hemorrhage began. Friction over the abdomen failed to induce uterine contraction, and no outline could be discerned through the abdominal walls. In this emergency, a lump of ice twice as large as a hen's egg was wrapped in a handkerchief and carried into the uterus, when almost immediately rhythmical contractions began. Soon they were more and more established. The hand was gradually withdrawn, with the clots and ice, as the uterus closed down upon it. A few minutes later the uterus had accomplished normal involution. Its natural contour and position were evident by palpation above the pubes externally. The hemorrhage had nearly ceased; the hand was withdrawn with the ice nearly melted; the vagina cleansed of coagula: the crisis was passed, and, though the patient had lost considerable blood, she did not seem unduly exhausted, and the heart action was satisfactory.

He had been informed later by Dr. Bates that, though he had enjoined the utmost care as to over-exertion of any kind, when he made his visit on the fourth day after her confinement, at an unexpected hour, she was sitting at table with her family and serving the tea.

DR. DUDLEY asked if the placenta should be removed before reducing the inversion. The reason he asked the question was because contraction of the uterus while it is inverted is not favorable to replacement, and handling the uterus as much as one would need to, in detaching the placenta, might make it contract, and increase the difficulty of replacement; consequently it has been the practice of many to replace the uterus with the placenta still attached.

DR. PARKES said that he would certainly expect, with a placenta as large as that body usually is, it would increase the difficulty of returning the uterus with the placenta in position.

DR. DOERING believed that if we use any traction at all on the cord in delivering the placenta, one hand should hold the uterus firmly, so that the slightest inversion could be detected.

DR. PARKES said that in listening to this paper, and

the criticisms that had been made upon it, it would be well to bear in mind the fact that the uterus may become extruded without any assistance on the part of the physician, and cited such a case that had occurred in his own practice.

CORRESPONDENCE.

THE CAUSES OF CHLOROSIS.

To the Editor of THE MEDICAL NEWS,

SIR: In the first part of my paper on the "Relations between Chlorosis, Pernicious Anæmia," etc., published in THE MEDICAL NEWS of October 5th, I have somewhat misrepresented the views of Dr. William Hunter, of Cambridge, England. It is almost superfluous to say that this was done through inadvertence, as my admiration for his excellent work is freely expressed in the paper referred to. The misstatement to which I allude is, that Dr. Hunter attributes the defect in hæmogenesis in chlorosis "to a cadaveric poison which destroys the iron contained in the food we eat."

After consulting Dr. Hunter's papers in the *Practitioner* and *Lancet*, I find that he does not attribute the cause of chlorosis to any single hypothetical ptomaine, but to an "excess of decomposition-products in the intestine." Of course, the organic iron of the food—the hæmatogen of Bunge—is not actually "destroyed" in chlorosis, but is practically so, for all nutritive purposes.

I make these corrections with pleasure, and do not think they weaken my argument in favor of the cognate characters of chlorosis and pernicious anæmia. According to Hunter, in chlorosis the organic iron of the food is destroyed in the intestinal tract by one or more products of decomposition; and, in pernicious anæmia, the organic iron of the red corpuscles, or these bodies themselves, is destroyed in the portal circulation by one or more products of decomposition. In both cases, products of decomposition are made responsible for the anæmia, thus, it seems to me, bringing chlorosis and pernicious anæmia into a relation more or less intimate.

I am, however, quite open to the conviction that pernicious anæmia is the result of excessive hæmolysis, and not, as I now hold, of defective hæmogenesis, and know of no one so likely to convert me as Dr. William Hunter.

FREDERICK P. HENRY, M.D.

THE RADICAL CURE OF HAY-FEVER.¹

To the Editor of THE MEDICAL NEWS,

SIR: I am pleased to find that my communication on "The Radical Cure of Hay-fever with Chromic Acid" has attracted sufficient attention to raise a suspicion of an apparent weak spot in its argument. Ordinarily, conclusions founded on a single particular are properly regarded as unstable, not on account of inherent logical necessity, but on account of the difficulty of confining consideration to the net question at issue. Especially is this true in medicine, where the complexity of causes and effects is such that generally the only practicable method of reasoning is by the collection of a large number of kindred cases, the rejection of all evident irrelevancies, and

¹ This letter was received in time for the issue of November 9th, but was unavoidably delayed in publication.

the elimination of the non-obvious possibilities of confusion by the application of statistics. The result of all this is an approximate truth. But, given conditions which facilitate observation and eliminate confusing causes, a more accurate conclusion is reached without such circumlocution, and these are the conditions presented by the case in question. A sufferer from hay-fever in a severe form for twenty-two years undergoes, with plenty of hopefulness and patience, every form of medical and surgical treatment recommended by eminent specialists, and receives a modicum of "enduring benefit" disproportionate to the sufferings from the treatment, among which sufferings the pain produced by applications of "carbolic acid to nearly all parts of attainable nasal mucous membrane" was preëminent. The chromic acid treatment, on the other hand, in a few weeks causes the subsidence of the disease, during the period of its ordinarily maximum severity, with little pain and with no assistance from expectant attention. The patient and surroundings being the same, the confusing causes are cancelled, and the change in result stands coupled with the change in treatment by a canon of logic.

I much regret that the spirit of Dr. Robinson's letter should oblige me to disclaim any quest for priority, a motive none the less discreditable to a liberal profession because so common in it. The sole motive for the communication was to induce others to try a treatment which had succeeded on apparently rational grounds in a case where everything else had failed. Furthermore, the method was not vaunted as a panacea for the loosely related group of affections popularly known as hay-fever, but its range of usefulness was marked out with tolerable distinctness. The shade of dogmatism characterizing the article was chosen in order to lead competent observers to test for themselves a treatment which had been singularly successful, and I sincerely trust that I have not given the matter a coloring which will raise a causeless prejudice among specialists, or induce others unfamiliar with the intricacies of the nasal chambers to run risks which are best avoided by employing or carefully watching the patient's sensations. A. H. L.

NEWS ITEMS.

Obituary.—Dr. ISAAC E. TAYLOR died suddenly of pericarditis in New York City on October 30th, in his seventy-eighth year. He was very prominent thirty years ago in carrying out the medical reforms which took place in connection with the administration of several charitable institutions, chiefly Bellevue Hospital and those on Blackwell's Island. He was one of the earlier members of the New York Academy of Medicine and a member of the first Faculty of Medicine in Bellevue Hospital Medical College and Consultant to five general and special hospitals. In 1887 he was President of the New York State Medical Society. Dr. Taylor graduated from the University of Pennsylvania, in 1834.

A Fire during the French Surgical Congress.—During a meeting, held October 7th, in the amphitheatre of the Faculty of Medicine in Paris, a fire broke out which necessitated the immediate adjournment of the meeting. The damage wrought by the fire amounted to nearly

\$6000, and pictures, hangings, tapestry, and furniture were all considerably damaged.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM NOVEMBER 5 TO NOVEMBER 11, 1889.

By direction of the Secretary of War, ROBERT M. O'REILLY, *Major and Surgeon*, will, at the expiration of his present leave of absence, proceed to Fort Logan, Colorado, and report in person to the commanding officer of that post for duty.—Par. 6, S. O. 256, A. G. O., November 2, 1889.

MERRILL, JAMES C., *Captain and Assistant Surgeon*.—Is relieved from duty at Frankford Arsenal, Pennsylvania, and ordered to duty at Fort Reno, Indian Territory.—Par. 6, S. O. 256, A. G. O., November 2, 1889.

BLACK, CHARLES S., *Captain and Assistant Surgeon*.—Is relieved from duty at Fort Sidney, Nebraska, to take effect upon the expiration of his present leave of absence, and will report in person to the commanding officer Fort Du Chesne, Utah Territory.—Par. 6, S. O. 256, A. G. O., Washington, November 2, 1889.

JOHNSON, R. W., *Captain and Assistant Surgeon*.—Is granted leave of absence for one month, to take effect on or about November 10th proximo.—Par. 4, S. O. 40, Department of Arizona, Los Angeles, California, October 29, 1889.

By direction of the Secretary of War, leave of absence for two months, on account of sickness, with permission to leave the Division of the Missouri, is granted JUNIUS L. POWELL, *Captain and Assistant Surgeon*.—Par. 2, S. O. 258, A. G. O., Washington, November 5, 1889.

MACAULAY, C. N. B., *Captain and Assistant Surgeon*.—Is granted leave of absence for one month, to take effect about the 29th instant.—Par. 2, S. O. 166, Department of the Missouri, Fort Leavenworth, Kansas, November 8, 1889.

IVES, F. J., *First Lieutenant and Assistant Surgeon*.—Is granted two months' leave of absence.—Par. 3, S. O. 256, A. G. O., November 2, 1889.

By direction of the Secretary of War, the following assignments of officers of the Medical Department (recently appointed) are ordered:

CHARLES WILLCOX, *First Lieutenant and Assistant Surgeon*.—Will report to the commanding officer at Fort Columbus, New York, for duty at that station.

HARLAN E. MC VAY, *First Lieutenant and Assistant Surgeon*.—Now at Fort Mackinac, Michigan, will report in person to the commanding officer of that post for duty.

EUCLED B. FRICK, *First Lieutenant and Assistant Surgeon*.—Will proceed from Philadelphia, Penna., to Fort Keogh, Montana, for duty at that station.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF THE MEDICAL CORPS OF THE U. S. NAVY, FOR THE WEEK ENDING NOVEMBER 9, 1889.

MACKIE, *Surgeon*.—Detached from the U. S. S. "Ossepee," and placed on waiting orders.

PICKERILL, GEORGE MCC., *Assistant Surgeon*.—Detached from the U. S. S. "Ossepee," and placed on waiting orders.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, FROM OCTOBER 19 TO NOVEMBER 9, 1889.

PURVIANCE, GEORGE, *Surgeon*.—Granted leave of absence for twenty-one days, November 8, 1889.

AUSTIN, H. W., *Surgeon*.—To inspect unserviceable property at St. Louis Marine Hospital, November 4, 1889.

GASSAWAY, J. M., *Surgeon*.—Relieved from duty at New Orleans, La. To rejoin station at Cairo, Ill., October 23, 1889.

BANKS, C. E., *Passed Assistant Surgeon*.—Granted leave of absence for thirty days, October 28, 1889.

STONER, J. B., *Assistant Surgeon*.—Ordered to Vineyard Haven, Mass., for temporary duty, November 6, 1889.

CONDICT, A. W., *Assistant Surgeon*.—Ordered to Cairo, Ill., for temporary duty, November 4, 1889.

ton, D. C., for temporary duty, November 8, 1889.

GUIERAS, G. M., *Assistant Surgeon*.—Ordered to Washington, D. C., for temporary duty, November 5, 1889.

GROENEVELT, J. F., *Assistant Surgeon*.—Ordered to New York, N. Y., for temporary duty, November 5, 1889.